



November 11, 2019

Certified Mail – Return Receipt Requested

Spill Prevention Compliance Coordinator
Attention: Mr. Joseph Canzano
U.S. EPA, Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912
Mail Code: 04-4

Also submitted electronically to: canzano.joseph@epa.gov

Re: Response to USEPA Request for Information
Docket No. CWA-308-R01-FY-19-32
Discharge of Sulfuric Acid
Barnhardt Manufacturing Company
247 Main Road, Colrain, MA
MassDEP RTN 1-20919
OEG Project No. 3958

Dear Mr. Canzano:

Omni Environmental Group (OEG), on behalf of Barnhardt Manufacturing Company (BMC), is providing this letter response to the United States Environmental Protection Agency (USEPA) Request For Information (RFI). Specifically, USEPA has requested response to questions related to the sulfuric acid release that occurred at the BMC facility located at 247 Main Road, Colrain, MA (the Facility) on September 1, 2019, to which a portion was further discharged to the Tailrace Brook and North River.

Pursuant to Section 311(b)(3) of the Clean Water Act (CWA), 33 United States Code U.S.C. § 1321, and Sections 308 and 311(m) of the CWA, 33 U.S.C. §§ 1318 and 1321(m), the USEPA required a response to the inquiries within 30 calendar days of BMCs receipt of the USEPA RFI. The USEPA RFI was received by BMC on October 7, 2019, requiring submission of response on or before November 6, 2019, and USEPA agreed to extend that due date to the close of business on November 12, 2019. Included under [Attachment-1](#), please find the USEPA RFI and BMCs Statement of Certification for Barnhardt Manufacturing Company, signed by Mr. Lewis Barnhardt, president and Chief Operating Officer (COO) of BMC.

The following presents the itemized list of inquiries taken from the USEPA RFI, with subsequent responses from BMC in *italicized indents*.

1. Please provide a detailed description of the above-referenced discharge, including:
 - a. Provide the date and time the discharge occurred, the date and time the discharge was discovered, and the date and time the discharge was reported to the National Response Center and any other appropriate federal, state and/or local agencies (e.g., EPA, state environmental agency, fire department). Include the name and phone number of the agency personnel contacted.
 - *The release condition leading to the discharge was identified on September 1, 2019 at approximately 6:00 A.M. during a routine shift inspection.*
 - *The discharge occurred on September 1, 2019 between approximately 3:00 A.M. and 6:00 A.M.*
 - *According to observations made by BMC personnel on September 1, 2019:*
 - *The night shift and day shift boiler operators were conducting a morning walk through of the Facility at the Screen Building (No. 132) around 6:00 A.M. on September 1 when they heard the sound of a liquid splashing against a hard surface. On this day, the boiler systems were not running, and the facility was rather quiet, which allowed them to hear the release condition before they could see it. Upon inspection of the rear (eastern side) of the AST, they saw a stream of sulfuric acid spraying out of the AST. The release condition appeared to be due to the failure of a bead weld on the top of the 3-inch supply piping that connects to the level transmitter. One boiler operator immediately used the plastic container of a nearby spill-kit to redirect the spraying acid back into the concrete containment structure. The other operator grabbed a shovel to construct a sand berm approximately 25 feet east of the AST to halt further migration. Upon containing the spill, the operator called the Maintenance/Facility manager, WWTP operator and EHS manager, and other salient BMC personnel, to advise of the release condition. The night shift boiler operator had made a similar walk through inspection of the Screen Building at*

approximately 3:00 A.M. and at that time did not hear the release condition first heard at 6:00 AM.

- *According to observations made by the night and day shift boiler operators, the release condition had made it to the concrete apron of the stormwater swale leading to the Tailrace; however, there was only minimal “wetness” to the concrete apron. BMC personnel applied neutralizing agent to the vertical face of concrete apron and rock outfall to the Tailrace Brook and the expected reaction with an acid (e.g. bubbling, fizzing and misting) was not observed. As a result, BMC personnel did not believe the Tailrace Brook had been impacted as that portion of the released acid not contained migrated only so far as the concrete apron.*
- *It was not until downstream reports of a fish kill were reported later in the afternoon of September 1, 2019 that BMC became aware (sometime between 5:00 and 5:15 P.M.) that some portion of the sulfuric acid released must have migrated to the Tailrace Brook and North River.*
- *Upon arrival at approximately 6:10 A.M., the WWTP operator found a breach on the eastern side of the AST that measured approximately one-quarter inch in diameter. Due to head pressure inside the AST, sulfuric acid was spraying into a plastic container that re-directed the acid into secondary containment. A sand berm was present inside the drainage swale that appeared to have stopped the acid from reaching the Tailrace Brook. Sodium bicarbonate was then used to neutralize acid that had reached the drainage swale. The WWTP operator then conducted a visual inspection of the concrete apron stormwater structure that drains to the Tailrace Brook, which is located at the eastern extent of the drainage swale and at that time, the acid had not appeared to have reached the water. The spreading of baking soda onto the rocks close to the water, which showed no reaction, led BMC personnel to believe that no acid had made it to the water of the Tailrace Brook.*
- *Following neutralization of acid impacted soil within the drainage swale, soil was excavated and placed into metal drums. Visual observations as well as the presence/absence of the chemical*

reaction between the sodium bicarbonate/sulfuric acid helped guide excavation efforts.

- *The WWTP operator proceeded to purchase two (2) 550-gallon polyethylene storage tanks and twenty-four (24), 14-pound bags of sodium bicarbonate. The polyethylene tanks were used for the recovery of virgin acid. Virgin acid was recovered using the day tank. In total 1,550-gallons of virgin acid was recovered. Due to incoming rain, the drainage swale and AST were covered in polyethylene sheeting.*
 - *As referenced above, Representatives from MassDEP and Town of Colrain Fire Department notified BMC of a fish kill between 5:00 and 5:15 P.M. on September 1, 2019 and that personnel from MassDEP were investigating. The WWTP operator proceeded to collect pH readings from the Tailrace Brook and Call Road, which were 7.5 and 7.7, respectively. During the collection of the pH sample on Call Road, the WWTP operator identified a fish kill that numbered between 10 and 15 fish.*
 - *Late on the evening of September 1, 2019, a BMC employee inspected multiple downstream locations along the North River for evidence of fish kill. He completed his inspection of the North River in the neighboring town of Shelburne Falls. The inspection of downstream locations yielded no evidence of fish kill.*
 - *According to the Maintenance/Facility manager, on the evening of September 1 following the initial emergency response actions to address the release condition, he did not observe evidence of fish kill within the Tailrace Brook.*
- *According to observations made by BMC personnel on September 2, 2019:*
 - *Upon arrival at approximately 5:00 A.M., the WWTP operator verified with the overnight staff that Facility conditions had remained stable. Overnight staff indicated that the location of the breach continued to drip into secondary containment. The WWTP operator purchased two (2) additional polyethylene ASTs (1,550-gallon and 325-gallon) as well as an additional twenty-four (24), 14-pound bags of sodium bicarbonate. The contents of the secondary containment were then removed. A second 1,550-gallon AST was*

purchased. A total of twenty (20) bags or approximately 280 pounds of sodium bicarbonate was then placed into the secondary containment to neutralize residual sulfuric acid. The WWTP operator estimated that through recovery operations, an additional 470-gallons of sulfuric acid was present than stock inventory indicated, and that AST did not have a working gauge.

- *Written statements by BMC personnel are included in [Attachment-2](#) and a Photograph Log is presented in [Attachment-3](#).*
- *Notifications of the discharge were provided as follows:*
 - *MassDEP, BWSC RTN 1-20919 (Joel Reese, 888-304-1133) – September 1, 2019 8:02 A.M.*
 - *Colrain Fire Department (Fire Chief Nicholas Anzuoni, 413-624-5528) – September 1, 2019 8:15 A.M.*
 - *Letter Notification dated September 27, 2019*
 - *US EPA NRC (Incident Report #1257035, private citizen, 800-424-8802) – September 2, 2019, 9:01 A.M. and (Incident Report #1257045, BMC, 800-424-8802) – September 2, 2019, 11:45 A.M.*
 - *Incident Response Letter dated September 27, 2019*
 - *Omni Environmental Group, LLC (Greg Morand, 978-256-6766, ext 102) – September 3, 2019*
 - *Colrain Conservation Commission (Alice Wozniak/Bill Dornbusch, 413-624-3356) – September 6, 2019, 9:50 A.M.*
 - *Email September 6, 2019 at approximately 10:00 A.M.*
 - *Letter Request for Emergency Certification dated September 26, 2019*
 - *Mass Division of Fish & Wildlife NHESP (Misty-Anne Marold, 508-389-6356) – September 10, 2019 at approximately 12:30 P.M.*
 - *Letter Request for Emergency Certification dated September 26, 2019*
 - *Franklin County Regional Emergency Planning Committee – Letter Notification dated September 27, 2019*

- b. *If the spilled material entered one or more bodies of water, or their adjoining shorelines, provide the name of each body of water.*

- *A portion of the spilled sulfuric acid (25 to 32 gal.) was likely discharged to the Tailrace Brook and North River. No other bodies of water or adjoining shorelines are known to have been impacted by the discharge.*

c. Provide the quantity of material spilled, and the quantity entering a water body or adjoining shoreline. If the spilled material was a mixture, give the chemical name of each component in the mixture and its percentages by weight in the mixture. If the material spilled was petroleum, give the grade of oil.

- *The spilled material consisted solely of 93% Sulfuric Acid. The Safety Data Sheet (SDS) provided by the vendor is presented in [Attachment-4](#).*
- *According to BMC records, the most recent delivery of sulfuric acid totaled 2,919-gallons. Following the release, a total of 2,866-gallons (1,920-gallons of sulfuric acid waste and 946-gallons of virgin acid) was recovered from the AST by BMC personnel. As such, the total volume of sulfuric acid released from the AST was estimated to be approximately 53-gallons.*
- *A review of Facility piping from the subject AST indicated that the piping is 1.25" diameter CPVC pipe, with approximately 104 linear feet prior to a high point where acid would be expected to flow towards the Bleachery Building [No. 134] and not back toward the subject tank. This length of pipe results in up to an additional [6.6] 7 gallons of sulfuric acid that could have back flowed toward the AST.*
- *Based on Facility personnel experience, the supply piping is "empty" at the time of pump activation; it takes 1-2 minutes for flow to make it to the Bleachery Building; and following pump deactivation, flow continues for an additional ~5-10 gallons to the Bleachery Building. As such, BMC Facility personnel do not believe that there was an appreciable amount of sulfuric acid in the supply piping at the time of tank failure/release condition.*
- *Notwithstanding, as a conservative measure, the total release volume is estimated at (53 + 7) 60 gallons (60 gallons x 15.3 lbs./gal.), or 918 lbs. A total of ten (10) 55-gallon drums of sulfuric acid impacted soils*

were removed from the area between the concrete containment, Screen Building and upper embankment of the Tailrace Brook through initial response action excavation efforts. The total volume of excavated soils is estimated at (0.28 cyds/drum x 10 drums) 2.8 cubic yards, and the volume of sulfuric acid contained in each drum is estimated at 5% (0.142 cyds/drum), totaling approximately (28.8) 28 gallons.

- Conservatively, BMC estimates that the release volume was between 53 gallons and 60 gallons; with an estimated 28 gallons retained in excavated soils east of concrete containment dike/south of Screen Building up to point of discharge to the Tailrace Brook; leaving approximately 25 gallons to 32 gallons likely being discharged to the Tailrace Brook and subsequently to the North River.*

d. Describe the pathway the spilled material traveled, starting from the original spill point (e.g., the tank in which the material was stored) to the most distant water body into which it flowed.

- Sulfuric acid was released from the failure of a bead weld on supply piping near the eastern base of the 4,500-gallon AST. Due to head pressure, the released acid “sprayed” over the concrete containment structure onto surficial soils located immediately south of the Screen Building/east of the concrete containment structure. From this point, some of the acid was retained in soils, and a portion of the acid migrated easterly atop soils (approximately 3-feet wide over 25 linear feet) and then continued easterly via a bituminous paved stormwater swale (approximately 2-feet wide over 15 linear feet) to the concrete apron stormwater discharge. From this area the acid discharged to the Tailrace Brook and flowed southerly approximately 465 feet to the confluence with the North River. Inspection by MassDEP of the confluence of the North River and Deerfield River (approximately 2.2 miles from the confluence of the Tailrace Brook and North River) revealed pH reading between 7 and 8 and the release condition is not believed to have impacted surface waters beyond the North River. Subsequent observations by other involved parties (as referenced herein) further confirm that impacts resulting from the discharge were restricted to the Tailrace Brook and North River.*

- e. Provide the age of the tank from which the material spilled and the date and results of the last tank integrity test that was performed on the tank (e.g., pressure, shell thickness).
- *According to BMC, the 4,500-gallon single-walled carbon steel subject AST had a placard dating construction circa 1966. BMC believes the tank was installed by the former Kendall Company, prior to BMC ownership/tenure of the Facility. Photo(s) of the AST are presented in [Attachement-3](#).*
 - *According to BMC, documentation on original permitting and licensure, integrity testing and shell thickness of the subject AST are not available. Please refer to response under Item 12 herein for additional information.*
- f. Describe any environmental damage resulting from the spill, such as fish kills, dead waterfowl or animals, stained vegetation or soil, etc. Provide any documentation in your possession related to the environmental damage resulting from the spill.
- *The release condition resulted in stained soils, vegetation and paved surfaces between the eastern limits of the concrete containment structure to the concrete apron stormwater outfall to the Tailrace Brook. These areas were neutralized, and impacted materials were removed. A fish kill was subsequently identified in the Tailrace Brook and North River. Photographs of the release condition, remedial actions and restoration are presented in [Attachment-3](#).*
 - *Observations made by OEG personnel on September 4, 2019 included:*
 - *No evidence of dead fish, amphibians or invertebrates in the Tailrace Brook or North River.*
 - *Photographs are presented in [Attachement-3](#).*
 - *pH readings collected from soil/sediment and surface water of the Tailrace Brook ranged from 6 to 6.5.*
 - *Observations made by OEG personnel on September 18, 2019 included:*
 - *No evidence of dead fish, amphibians or invertebrates in the Tailrace Brook or North River.*
 - *Two fisherman were spoken to in the North River whom indicated that fish (rainbow and brown trout) were “thriving”, with 11 fish*

caught that day and 9 fish the last time out.

- *A total of five (5) locations were assessed for pH in soil and surface water, as follows (refer to figure in [Attachment-7](#)):*

- *Discharge point to Tailrace Brook*
 - i. *Surface water – pH of 7*
 - ii. *Soil – pH of 7*
- *Confluence of Tailrace Brook and North River*
 - i. *Surface water – pH of 6.5*
 - ii. *Soil – pH of 7*
- *North River off Call Road*
 - i. *Surface water – pH of 7.5*
 - ii. *Soil – pH of 8*
- *North River at USGS Monitor Station*
 - i. *Surface water – pH of 8*
 - ii. *Soil – pH of 7*
- *North River at bridge crossing (immediately west of intersection of Route 112 and Charlemont Road)*
 - i. *Surface water – pH of 7*
 - ii. *Soil – pH of 7*
- *Confluence of North River and Deerfield River*
 - i. *Surface water – pH of 8*
 - ii. *Soil – pH of 8*

- *According to information contained in MassDEP Release Amendment Form BWSC-102 for RTN 1-20919 (presented in [Attachement-5](#)) dated September 1, 2019: NOTIFICATION RECEIVED FROM MEMA REGARDING A CALL BACK REQUESTED FROM REBECCA QUINONES WITH THE MASS DIVISION OF FISH AND WILDLIFE. MS. QUINONES STATED THAT HER AGENCY RECEIVED A NOTIFICATION OF A MULTI SPECIES FISH KILL ON THE NORTH RIVER IN COLRAIN AND SHELBURNE. THE PERSON WHO CONTACTED HER AGENCY STATED THAT THE DEAD FISH WERE OBSERVED UP TO THE AREA OF BARNHARDT MANUFACTURING. MASSDEP REPRESENTATIVE JOEL REES RESPONDED TO COLRAIN TO ASSESS THE NORTH RIVER AND BARNHARDT MANUFACTURING. WHILE ENROUTE TO THE AREA, THE COLRAIN FIRE DEPARTMENT WAS CONTACTED TO DETERMINE IF THEY HAD BEEN NOTIFIED OF THE INITIAL RELEASE EARLIER*

IN THE MORNING AND IF THEY WERE CONTACTED REGARDING THE FISH KILL. COLRAIN FD STATED THAT REPRESENTATIVES WOULD MEET MASSDEP AT THE BARNHARDT SITE. MASSDEP INITIALLY STOPPED AT THE CONFLUENCE OF THE NORTH AND DEERFIELD RIVERS TO ASSESS ANY IMPACTS. DOZENS OF SMALL FISH WERE OBSERVED DEAD WITHIN THE NORTH RIVER. A PH READNG OF THE WATER WITH PH INDICATOR STRIPS EXHIBITED A PH OF AROUND 7 TO 8. PEOPLE WHO WERE SWIMMING IN THE DEERFIELD RIVER NEAR THE CONFLUENCE WERE ADVISED OF A POTENTIAL SITUATION WITH THE WATER AND WERE ADVISED TO NOT SWIM IN THE AREA UNTIL FURTHER ASSESSMENT COULD BE DONE. MASSDEP THEN MET UP WITH FISH AND WILDLIFE REPRESENTATIVE LEANDA FONTAINE AT CHARLEMONT AND MAIN ROADS. MS. FONTAINE STATED THAT SHE HAD OBSERVED HUNDREDS OF DEAD FISH WITHIN THE RIVER. ABOUT 5 to 7 DIFFERENT SPECIES WERE IDENTIFIED. MS FONTAINE STATED THAT SHE WAS GOING TO CONTINUE HER ASSESSMENT AND WOULD NOTIFY MASSDEP OF ANY SIGNIFICANT FINDINGS. MASSDEP MET WITH MEMBERS OF THE COLRAIN FD AT THE BARNHARDT FACILITY. AN EMPLOYEE ESCORTED MASSDEP AND THE FD TO THE SULFURIC ACID TANK AREA. THE SULFURIC ACID TANK AND ASSOCIATED CONTAINMENT WAS COVERED WITH PLASTIC. A DRAINAGE SWALE GOING FROM THE CONTAINMENT AREA TO A TAIL RACE WAS ALSO COVERED WITH PLASTIC. EMPLOYEES WERE PUMPING SULFURIC ACID OUT OF THE AST TO A TANK WITHIN THE MAIN BUILDING. THE TANK WAS LEAKING SULFURIC ACID INTO CONTAINMENT. THE EMPLOYEES WERE TOLD ABOUT THE FISH KILL DISCOVERED LEADING UP TO THE FACILITY. THE EMPLOYEES HAD A SURPRISED REACTION AS THEY DID NOT BELIEVE ANY ACID WENT INTO THE SURFACE WATER AS THERE WERE NO VISIBLE IMPACTS TO THE SOIL OR ROCKS ADJACENT TO THE STREAM AT THE BOTTOM OF THE DRAINAGE SWALE. THE EMPLOYEES STATED TO MASSDEP THAT THE IMPACTED SOIL WITHIN THE SWALE WAS TREATED WITH SODIUM BICARBONATE AND PLACED INTO DRUMS. ADDITIONAL BICARBONATE WAS APPLIED TO THE EXCAVATION LIMITS AND THEN COVERED WITH PLASTIC. THE FIRE DEPARTMENT, ALONG WITH COLRAIN AND SHELBURNE POLICE THEN WENT DOWN THE NORTH RIVER TELLING ANYONE WHO WAS IN OR NEAR THE WATER TO STAY OUT OF THE WATER UNTIL IT COULD BE ASSESSED.

- According to an excerpt of information contained in MassDEP Release Amendment Form BWSC-102 for RTN 1-20919 (presented in [Attachement-5](#)) dated September 2, 2019: MASSDEP REPRESENTATIVE JOEL REES PERFORMED A SITE INSPECTION TO ASSESS THE PROGRESS OF TRANSFERRING SULFURIC ACID FROM THE LEAKING TANK TO OTHER TANKS, AND OBSERVE IF ANY ADDITIONAL IMPACTS TO THE NORTH RIVER HAD OCCURRED. MASSDEP ALSO INSPECTED THE TAIL RACE AND NORTH RIVER. NO ADDITIONAL IMPACTS WERE OBSERVED.

- According to an excerpt of information contained in MassDEP Release Amendment Form BWSC-102 for RTN 1-20919 (presented in [Attachement-5](#)) dated September 3, 2019: MASSDEP REPRESENTATIVE JOEL REES PERFORMED A SITE INSPECTION TO ASSESS THE REMOVAL OF SULFURIC ACID FROM THE CONTAINMENT AREA AND EVALUATE THE SPILLWAY AND NORTH RIVER FOR ANY FURTHER IMPACTS. NO FURTHER IMPACTS TO THE SPILLWAY OR NORTH RIVER WERE OBSERVED.
 - As of the date of this letter response to the USEPA RFI, no additional information has been presented by MassDEP BWSC in relation to environmental damage resulting from the spill.

- According to excerpts of information contained in the NHESP letter to BMC under NHESP File no. 19-38905 (presented in [Attachement-5](#)) dated September 30, 2019: “The above referenced acid release by Barnhardt resulted in the killing of fish, amphibians, and invertebrates, including State-listed species.” “Around mid-day on 9/1/19, the Division’s Fish Kill Response Team received the first of several reports of dead and dying fish in the North River. MassDEP and Division personnel deployed to investigate the fish kill. They collected samples and recorded observations along the length of the North River. Division staff observed dead and dying fish, frogs and crayfish in the North River between the site of Barnhardt’s facility and the confluence with the Deerfield River.”
 - As of the date of this letter response to the USEPA RFI, no additional information has been presented by NHESP in relation to environmental damage resulting from the spill.

- According to excerpts of information contained in the Shelburne Falls Fire District letter to MassDEP (presented in [Attachement-5](#)) dated September 25, 2019: *“The MassDEP and several local first responders were notified and examined the site of the spill. According to eye witnesses, several on-site pictures and the local paper, the Recorder, several thousand fish were killed or injured due to the sulfuric acid entering the river by means of a ditch/channel leading to the river from the containment tank.”*
 - It should be noted that initial reports from regulatory agencies suggested “dozens” or “several hundreds” of dead fish resulting from the release, and that evidence of the death of “several thousand” fish has not been observed or documented by BMC or OEG, nor has certifiable evidence of such observations (e.g. photographs, log reports, etc.) been presented to BMC or OEG in preparation of this RFI response.
 - OEG reviewed the water level gauging data provided for the nearby USGS station downstream at Shattuckville (provided as [Attachment-6](#)) and provides the following:
 - According to the downstream gauging data provided by the USGS 01169000 North River At Shattuckville, MA station, on September 1, 2019, the gauge height (in feet) was slightly higher than 1 foot. According to the USGS, the operational limit of the North River is approximately 0.5 feet, indicating that at the time of the release, the water level in North River was extremely low. From the information provided one may surmise that historically surveyed fish populations may not have been as high in the locations of the North River between the gauging station and the BMC Facility at the time of the release due to the extreme low water elevations. Furthermore, due to the low water elevations, a fish kill in the “10’s of thousands”, as reported in social media and press publications, may not be accurate.

- According to excerpts of information contained in an article from the Greenfield Recorder (presented in [Attachement-5](#)) published September 5, 2019:
 - *“The state’s assistant director of fisheries said it could take a few years for certain fish species to repopulate the North River following a sulfuric acid leak that he conservatively estimates killed tens of thousands of mostly small fish Sunday.”*
 - *“David Slowick, section chief for emergency response for the state Department of Environmental Protection (MassDEP), said the leak was not catastrophic.”*
 - *The Division of Fisheries and Wildlife said “the North River will be restocked with trout in the fall and spring as long as water quality has returned. Slowick said Monday that tests taken that day indicated pH levels in the river had returned to normal.”*
 - *“Some Colrain residents who live along the river, voiced disappointment that they were not immediately notified of the acid leak. Catherine Skiba, regional spokesperson for MassDEP, said residents were not notified because the spill didn’t pose a public threat.”*
 - *“The pH of the river water was normal along the entire reach and there was no threat to the public,” Skiba explained. “Had there been a threat, public notice would have been issued.”*
- g. Describe any damage to public or private property, such as road surfaces, bridge abutments, dams, beaches, boat hulls, wells, etc.
 - *Beyond the impacts incurred at the Facility, no impacts to public or private property are known to have occurred as a result of this release condition.*
 - *Initially identified impacted Facility soils were excavated and managed off-site (via ten [10] 55-gallon drums) as remediation waste. Sulfuric acid waste was properly managed by BMC personnel via the waste water treatment plant (WWTP), virgin sulfuric acid was recovered from the subject AST for reuse, the subject AST was neutralized/cleaned and transported off-site for recycling, impervious surfaces of the southern side of the Screen Building and pavement abutting the former concrete*

containment structure were neutralized, and the former concrete containment structure was neutralized, cleaned, demolished and is securely stockpiled pending off-site recycling. Approximately 20 cubic yards of acid impacted soils were excavated from beneath the former concrete containment structure between October 25 and 27 and are securely stockpiled pending off-site disposal.

h. Provide a summary of events immediately preceding the spill event, including the probable cause of the spill.

- *According to BMC personnel, a small drip (at a drip rate of approximately once every 5 minutes) was detected around supply piping on the eastern side of the subject AST on Monday August 26, 2019. The drip was believed to be from a flange connection (or seal thereof) and was being entirely held within the concrete containment dike.*
- *In response to this observation, BMC added neutralizing agent to the interior of the concrete containment and initiated internal discussions and a Capital Forecast Projection to replace the subject AST and not take any more loads. Within the next few days, BMC decided not to replace the tank, but get rid of it and instead use new, smaller volume, interior sulfuric acid storage/metering totes. See written statements by BMC personnel as [Attachment-2](#).*
- *On August 29, 2019, a bucket was left underneath the drip to monitor the rate of dripping. On August 30, 2019, there was barely enough liquid to cover the bottom of the bucket.*
- *Based on BMC observations on September 1, 2019, the probable cause of the spill has been attributed to the failure of a bead weld on the supply piping exiting the eastern base of the subject AST.*

- i. Describe any actions taken to control and/or remove the spilled material from the environment or to mitigate its effects on the environment, including a summary of the costs of such actions. Please provide copies of all clean-up contractor invoices and manifests.
- *Between September 1 and 4, 2019, impacted soil was excavated, containerized and the area of excavation was treated with a neutralizing agent (i.e. sodium bicarbonate). A total of total of approximately 170 pounds of neutralizing agent was applied to impacted soils. A total of ten (10) 55-gallon drums of sulfuric acid impacted soils were removed through excavation activities.*
 - *Following the release condition, BMC utilized approximately 1,920-gallons of sulfuric acid "waste" recovered from below the virgin acid to neutralize waste coming into the on-Site Wastewater Treatment Plant (WWTP) lagoon (the historical method for waste neutralization utilized at the WWTP up until~2017). The reuse of the recovered sulfuric acid "waste" in the WWTP was performed in accordance with BMC's March 2018 Modification of Authorization to Discharge Under the National Pollutant Discharge Elimination System (NPDES; Permit No. MA0003697).*
 - *On September 1, 2019, approximately 946-gallons of virgin acid was removed from the AST for on-Site reuse. Moving forward, BMC will not be replacing the exterior sulfuric acid AST, and instead intends to store bulk sulfuric acid in a suitable storage and metering design(s) within the base floor of the Bleachery Building (No. 134) and Screen Building (No. 132).*
 - *On September 30, 2019, personnel from OEG and Western Mass Environmental (WME) were on-Facility to clean, cut, dismantle and dispose of the 4,500-gallon sulfuric acid AST. As a result of un-safe atmospheric conditions due the reaction between the water rinsate and sulfuric acid sludge, personnel from WME were unable to enter the AST. As such, the tank was allowed to ventilate until subsequent cleaning could be safely performed.*
 - *On October 3, 2019, personnel from OEG and WME returned to the Site to finish cleaning the AST. WME personnel identified approximately 8-10*

inches of sulfuric acid sludge and coal ash (used to neutralize the sulfuric acid on 9/30) in the AST. Subsequently, WME personnel performed vacuum extraction and clean-out activities of the AST. Vacuum extraction activities were performed using a vacuum truck containing approximately 2,000-gallons of clean water. The extracted sludge was diluted and thinned as it entered the vacuum truck. The wastewater was then managed through the facilities WWTP. WME removed a total of ten (10) 55-gallon drums containing sulfuric acid impacted soil and neutralizing agent (baking soda). The drums were transported off-Site for disposal at Veolia ES Technical Solutions in Blainville Canada.

- On October 7, 2019, personnel from OEG, WME and Harold's Garage returned to the Site to remove the AST. Due to the size and weight of the AST, the tank was removed using a crane and rigging. The AST was transported off-Site Joseph Freedman Co. in Springfield, MA for recycling.*
- Between October 22 and 24, 2019, personnel from OEG provided oversight of WME for the neutralization, cleanout, demolition, rebar removal and stockpiling of the former concrete containment dike. All neutralization media and liquid wastes were diluted and pumped into the Facility WWTP for management. The neutralized concrete debris was broken into suitably sized pieces and stockpiled on/covered with poly sheeting pending off-Site management.*
- On October 24 and 25, 2019, personnel from OEG conducted assessment of soils beneath the former concrete containment using a shovel, hand auger and hand held GeoProbe tooling.*
- Using a grid pattern, a total of twenty-three (23) shallow soil samples were collected from a depth of 2 to 4-inches below grade. Out of the twenty-three (23) samples collected, seventeen (17) had a pH greater than 6 indicating generally neutral pH levels. Surficial soil samples collected from beneath the northeastern portion of the former containment dike, closest to the screen building and gate valve, contained pH readings that ranged from 3.6 to 5, indicating acidic to slightly acidic pH levels. These samples generally ranged from 0-2 feet below grade. In total, twenty (20)*

satisfactory soil samples (S-5/5B and S-7/7B through S-15/15B) were collected from the area of the former containment dike and submitted for laboratory analysis of pH on October 24.

- *Soil samples S-5 and S-7 through S-15 contained soil that was collected from the top 2 to 4-inches. Soil samples S-5B and S-7B through S-15B were collected from the same location, but at a depth of approximately 1-foot below grade. Three (3) background samples were collected from the soil embankment located immediately south of the former containment dike. Sample BG-1 was located approximately 17 feet east and 14 feet south of the containment dike. Sample BG-2 was located approximately 10 feet south and sample BG-3 was located approximately 19 feet west and 10 feet south of the containment dike. Soil pH readings ranged from 6 to 7, indicating generally neutral pH levels.*
- *As evidenced by the pH readings from the northeastern portion of the former concrete containment (refer to attached Site Plan), additional excavation was warranted in this area. OEG returned to the Site on October 25, 2019, to conduct additional assessment in the area of identified acid impacts near the screen building and gate valve using GeoProbe direct push hand tools. A total of eleven (11) vertical profile soil borings were advanced today via hand held GeoProbe tooling, 2 ft soil sleeves and micro-core sampling methodologies. According to findings, eight (8) contiguous samples showed low pH soil impacts between 4.5 and 5.5, to a depth up to 4 to 5 feet bgs. In addition, one (1) discrete sample in the western portion of the former concrete containment also showed low pH soil impacts between 5 and 5.5, to a depth up to 3 feet bgs.*
- *Between October 25 and 27, 2019, personnel from WME and OEG excavated soil in these two (2) areas beneath the former concrete containment. Excavation activities were performed with hand tools and a mini excavator. Soil pH readings from the limits of completed excavation beneath the former concrete containment ranged between pH 6 and 7.*
- *The final limits of excavations measured approximately 8 feet by 8 feet to a depth of 5 feet bgs (northeastern) and 2 feet by 3 feet to a depth of 3 feet*

bgs (western). The volume of impacted soils excavated is estimated at approximately 20 cubic yards (to which Omni requested an additional 25 cyds soil approval from MassDEP on October 29 [approved on October 30] under the IRA [50 cyds total]). Soil was stockpiled securely at the Facility on/covered with poly sheeting pending off-Site disposal. Disposal documentation will be presented in a future regulatory submittal.

- *Between October 24 and 28, 2019, confirmatory soil samples (twenty [20] on October 24 and sixteen [16] on October 28) were collected from these additionally completed excavation areas for field (ranging between 6 and 8 pH units) and laboratory analysis of pH, the laboratory results of which will be documented in forthcoming regulatory submittals.*
- *Refer to [Table 1](#) and [Table 2](#) for analytical data generated to date and [Figure 3](#) for a depiction of completed excavation areas, confirmatory soil sample locations, restoration details and other pertinent Facility features in the vicinity of the release location. These tables and Site Plan are presented in [Attachment-7](#)*
- *BMC is still working to assemble the cleanup contractor invoicing and remediation waste disposal documentation associated with the response actions taken to address the release. Manifests received to date are presented in [Attachment-8](#). The complete contractor invoicing and remediation waste disposal documentation will be provided to USEPA under a follow up submittal.*

j. Describe any measures taken after the spill event to prevent a recurrence, including the costs of such measures.

- *On September 1, 2019, following discovery of the release condition, BMC undertook the following measures:*
 - *Take the subject AST Out of Service.*
 - *Made notifications as listed herein.*
 - *Transfer “virgin” and “waste” acid from the subject AST to temporary poly totes and drum containers.*
 - *Neutralize areas of acid impacts to pavement, concrete and soil with sodium bicarbonate.*

- *Excavate grossly impacted soils between the concrete containment/Screen Building and the bituminous stormwater swale that leads to the Tailrace Brook.*
 - *Arrange for future removal of the subject AST and proper disposal of remediate waste(s).*
- *On October 23, 2019, BMC held a Facility meeting with Robert Mitchell Engineering, P.C. in request of a professional engineer (PE) designed specification for the interior storage, secondary containment and metering of sulfuric acid in the Bleachery Building (No. 134) and Screen Building (No. 132).*
 - *Details of a new draft design are still pending as of the date of this letter response to the RFI. The results of the approved PE design will be presented in a future submittal.*
 - *For the time being, BMC is storing sulfuric acid in the “Day Tank” of the Bleachery Building (No. 134) and in a 55-gallon drum within the Screen Building (No. 132).*
 - *The virgin sulfuric acid recovered from the former subject AST has been removed from the totes in the Bleachery Building (No. 134) by the vendor and is being returned to the Facility by the vendor by delivery request from BMC. The new deliveries are transferred to the “Day Tank” by BMC personnel upon the vendor delivery.*
 - *Future temporary storage of tote(s) and/or drum(s) of sulfuric acid in the Bleachery Building and Screen Building will include the use of a suitably sized secondary containment (e.g. “spill pallet” or similar) until such time that approved PE designed systems can be implemented in both Facility locations.*
 - *Also, on that day, BMC held a Facility meeting with Notch Mechanical Constructors as it may relate to new piping installations necessary to complete the new interior storage and metering systems.*
- k. Provide the names, titles, addresses and phone numbers of employees and officials you believe to have knowledge of the facts surrounding the spill event.
- *BMC personnel:*
 - *Mark Thibodeau 25 Coburn St Colrain, MA 01340 413-624-3232*

- *Keith Gammell 124 West Oxbow Rd Shelburne Falls, MA 01370 413-625-2381*
- *Joe Shutta 117 Hillcrest Dr Bernardston, MA 01337 413-512-0177*
- *William Trenholm 65 Bald Mountain Rd Bernardston, MA 01337 413-230-6574*
- *Larry Couch 114 Millers Falls Rd Turners Falls, MA 01376 413-883-3139*
- *Colrain Fire Chief Nicholas Anzuoni, 17 Wilson Hill Road; Colrain, MA 01340 413-325-6727 413-624-0131*
- *Colrain Fire Lt. Kevin Worden II, 82 Greenfield Road; Colrain, MA 01340. 413-774-1960 413-624-3719*
- *Colrain Fire Lt. Doug Donelson, 337 Main Road, Colrain; MA 01340. 413-522-7132 413-624-9601*
- *Colrain Fire Fighter Dave Adams, 4 High Street, Colrain; MA 01340. 413-768-1986 413-624-8911*
- *Colrain Fire Fighter Michael Gabaree, 140 Jacksonville Road; Colrain, MA. 01340 413-564-1332 413-624-3089*
- *Joel Reese - Massachusetts Department of Environmental Protection Emergency Response Division Western Region 436 Dwight Street Springfield, MA 01103 Phone – (413) 755-2114*
- *Dave Slowick - Massachusetts Department of Environmental Protection Emergency Response Division Western Region 436 Dwight Street Springfield, MA 01103 Phone – (413) 755-2246*
- *Misty-Anne Marold, Sr. Endangered Species Review Biologist MassDEP – NHESP 1 Rabbit Hill Road Westborough, MA 01581 – Phone (508) 389-6356*

- I. Provide copies of any investigative reports by state environmental agencies, state or local police, fire departments, insurance companies, etc.
 - *Copies of available documentation from MassDEP, NHESP, USEPA, Colrain Fire Department, Colrain Police Department, Colrain Conservation Commission, and the Shelburne Falls Fire District are presented in [Attachment-5](#).*

2. Provide the name, address, phone number of the Facility's owner at the time of the spill.

- *North River LLC, Physical Address- 1100 Hawthorne Lane. Mailing address: PO Box 34276, Charlotte, NC 28234. Phone number: 1-704-405-4005*

3. Provide the name, address, phone number of the Facility's operator at the time of the spill, if different from the owner.

- *Barnhart Manufacturing Company, Inc. Physical Address: 1100 Hawthorne Lane. Mailing address: PO Box 34276, Charlotte NC 28234. Phone Number: 1-704-376-0380*

4. Provide the name, address, and phone number of any additional party that installed or provided maintenance to the tank from which the material spilled, and provide any documents relating to the permitting and licensing of the tank from which the material spilled.

- *According to BMC, information requested under Item 4 above for the subject AST is not available. Please refer to response under Item 12 herein for additional information.*

5. Provide the date the Facility first began operation and, if different, the date the current owner took over ownership of the Facility. If the Facility is operated by an entity other than the owner, also include the date the current operator took over operation of the Facility.

- *BMC acquired the Colrain MA Facility on June 29, 2007. The Facility was owned and operated by several other entities.*

- *The following provides a summary of historic Site ownership culled from historic Site documents and information obtained through communications with BMC:*

- *1828 – Site and surrounding area (presently known as 237 and 247 Main Road) are developed by Griswold Company for use as a sash and blind shop. The property began cotton mill operations in 1832. From 1894 through the 1920s buildings for gauze and cotton bleaching were constructed and utilized. Cotton dying operations began around 1925.*
- *1932 – The property owned by Griswold Company is sold to Kendall Company and cotton manufacturing processes are continued.*

- 1971 – The WWTP was constructed to treat process and domestic wastes generated by the bleacheries.
- 1972 – The property owned by Kendall Company is sold to Tyco Healthcare Group.
- 1975/76 – The Tailrace Brook is relocated into a culvert to facilitate the construction of the Bleachery Building (#134) on the Site property.
- 1986 – The northern portion of the property (237 Main Road) is sold to AF&F.
- 1987 – The southern portion of the property (247 Main Road [i.e. the Site]) is sold to Veratec, a division of IP.
- 1998 – The southern portion of the property (247 Main Road [i.e. the Site]) is sold to Fiberweb.
- 1998 – AF&F (237 Main Road), ceases manufacturing operations. The AF&F buildings were demolished between 1999 and 2003.
- 2007 – Barnhardt purchases the Site property (247 Main Road) from Fiberweb.

6. Provide a list of all the oil storage capacity at the Facility at the time of the spill, both underground and aboveground (including, tanks, drums, transformers, oil- filled systems, etc.) and the type of oil stored in each container. Indicate each container's age and method of construction (e.g., single or double wall, steel or fiberglass). Also indicate whether any secondary containment was provided around each container, and, if so, its method of construction and the total volume it can contain. Under 40 C.F.R. § 112.2, "oil" is defined as oil of any kind or in any form, including but not limited to petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil.

- The BMC Facility stores petroleum in the following locations:

Tank Type & Material	Volume (gallons)	Product Stored	Location	Comment	Type of Containment
<i>Bulk ASTs Steel (4)</i>	<i>20,000</i>	<i>ULS #2 Diesel</i>	<i>Concrete Platform south of Building 117</i>	<i>Store no more than 95% capacity per each AST</i>	<i>Double-wall steel and interstitial monitoring.</i>
<i>55-gallon Drums Steel</i>	<i>55 to 220</i>	<i>Virgin oils</i>	<i>Building 119 Interior</i>	<i>Stores 0 to 4 drums as needed</i>	<i>Spill pallet(s)</i>
<i>55-gallon Drums Steel</i>	<i>55 to 220</i>	<i>Waste oils</i>	<i>Building 119 Exterior container</i>	<i>Stores 0 to 4 drums as needed</i>	<i>Spill pallet inside of containment shed</i>
<i>Oil Filled Hydraulic Reservoirs</i>	<i>100 to 115</i>	<i>Hydraulic oils</i>	<i>Building 134 and Building 118</i>	<i>Auxiliary hydraulic oil reservoirs and feed line</i>	<i>Reservoirs within equipment containments set within buildings.</i>
<i>Electrical Transformers</i>	<i>250 to 750</i>	<i>MODF (non-PCB)</i>	<i>Northeast and south of Building 134</i>	<i>Oil filled electrical equipment</i>	<i>None</i>
<i>AST Steel</i>	<i>500</i>	<i>Diesel fuel</i>	<i>West of Building 117</i>	<i>Store no more than 95% capacity in the AST</i>	<i>Double-wall steel and dispensing containment.</i>

- The BMC Facility further stores/uses the following chemicals:

Storage Type	Chemical Type	Volume (gallons, unless noted)	Location	Type of container	Type of Containment
	<i>Hydrogen Peroxide</i>	<i>10,000</i>	<i>Exterior, west of Building No. 134</i>	<i>Single walled tank</i>	<i>Concrete Containment Structure</i>
	<i>Sulfuric Acid (Pending new PE approved design)</i>	<i>300</i>	<i>Basement Building 134</i>	<i>Polyethylene tank</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Amihold 1140</i>	<i>Six 55-gallon drums</i>	<i>2nd floor Building 134</i>	<i>55-gallon drums</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Sulfuric Acid</i>	<i>500</i>	<i>Basement Building 134</i>	<i>Carbon Steel</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Caustic</i>	<i>10,000</i>	<i>Basement Building 134</i>	<i>Carbon Steel</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Chelator Dissolvine D40</i>	<i>2,500</i>	<i>Basement Building 134</i>	<i>304SS (Stainless Steel)</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Citric Acid</i>	<i>2,250 lbs</i>	<i>2nd floor Building 134</i>	<i>Bags</i>	<i>Interior storage all drainage to WWTP</i>

Storage Type	Chemical Type	Volume (gallons, unless noted)	Location	Type of container	Type of Containment
	<i>Evosoft SFBM</i>	<i>1,760 lbs</i>	<i>2nd floor Building 134</i>	<i>55-gallon drums</i>	<i>Interior storage all drainage to WWTP</i>
	<i>*Fluftone-AZS</i>	<i>44 lbs</i>	<i>2nd floor Building 134</i>	<i>55-gallon drums</i>	<i>Interior storage all drainage to WWTP</i>
	<i>*Fluftone-CPE</i>	<i>880 lbs</i>	<i>2nd floor Building 134</i>	<i>55-gallon drums</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Glycerine</i>	<i>6,188 lbs</i>	<i>2nd floor Building 134</i>	<i>Totes</i>	<i>Interior storage all drainage to WWTP</i>
	<i>East Dryer Glycerin Mix Tank</i>	<i>55</i>	<i>2nd floor Building 134</i>	<i>304SS (Stainless Steel)</i>	<i>Interior storage all drainage to WWTP</i>
	<i>West Dryer Glycerin Mix Tank</i>	<i>55</i>	<i>2nd floor Building 134</i>	<i>304SS (Stainless Steel)</i>	<i>Interior storage all drainage to WWTP</i>
	<i>East Dryer Mix Tank</i>	<i>55</i>	<i>2nd floor Building 134</i>	<i>304SS (Stainless Steel)</i>	<i>Interior storage all drainage to WWTP</i>

<i>Storage Type</i>	<i>Chemical Type</i>	<i>Volume (gallons, unless noted)</i>	<i>Location</i>	<i>Type of container</i>	<i>Type of Containment</i>
	<i>West Dryer Mix Tank</i>	<i>55</i>	<i>2nd floor Building 134</i>	<i>304SS (Stainless Steel)</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Portable Mix Tank</i>	<i>55</i>	<i>2nd floor Building 134</i>	<i>304SS (Stainless Steel)</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Idrosolvan-RD7</i>	<i>900 lbs</i>	<i>2nd floor Building 134</i>	<i>55-gallon drums</i>	<i>Interior storage all drainage to WWTP</i>
	<i>*Intratex-RTA</i>	<i>450 lbs</i>	<i>2nd floor Building 134</i>	<i>55-gallon drums</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Magnesium Chloride</i>	<i>950 lbs</i>	<i>2nd floor Building 134</i>	<i>50 lbs bags</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Mykon-HD</i>	<i>2,250 lbs</i>	<i>2nd floor Building 134</i>	<i>55-gallon drums</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Organic Soap</i>	<i>1,650 lbs</i>	<i>2nd floor Building 134</i>	<i>55 lbs bags</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Soap Mix Tank A</i>	<i>500</i>	<i>2nd floor Building 134</i>	<i>304SS (Stainless Steel)</i>	<i>Interior storage all drainage to WWTP</i>

<i>Storage Type</i>	<i>Chemical Type</i>	<i>Volume (gallons, unless noted)</i>	<i>Location</i>	<i>Type of container</i>	<i>Type of Containment</i>
	<i>Soap Mix Tank B</i>	<i>500</i>	<i>2nd floor Building 134</i>	<i>304SS (Stainless Steel)</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Soap Mix Tank C</i>	<i>250</i>	<i>2nd floor Building 134</i>	<i>304SS (Stainless Steel)</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Soap Mix Tank D</i>	<i>250</i>	<i>2nd floor Building 134</i>	<i>304SS (Stainless Steel)</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Permulsin-AO300</i>	<i>1,000 lbs</i>	<i>2nd floor Building 134</i>	<i>55-gallon drums</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Seraspearse SS600</i>	<i>3,713 lbs</i>	<i>2nd floor Building 134</i>	<i>55-gallon drums</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Setilonknl</i>	<i>860 lbs</i>	<i>2nd floor Building 134</i>	<i>55-gallon drums</i>	<i>Interior storage all drainage to WWTP</i>
	<i>*Sodium Acetate</i>	<i>500 lbs</i>	<i>2nd floor Building 134</i>	<i>50 lbs Bags</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Sodium Bisulfate</i>	<i>2,000</i>	<i>Basement Building 134</i>	<i>304SS (Stainless Steel)</i>	<i>Interior storage all drainage to WWTP</i>

<i>Storage Type</i>	<i>Chemical Type</i>	<i>Volume (gallons, unless noted)</i>	<i>Location</i>	<i>Type of container</i>	<i>Type of Containment</i>
	<i>Sodium Silicate</i>	<i>625 lbs</i>	<i>2nd floor Building 134</i>	<i>55-gallon drums</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Manawet RCN (BMC to <u>replace this with alternative</u>)</i>	<i>5,400</i>	<i>Basement Building 134</i>	<i>304SS (Stainless Steel)</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Vegetable Soap</i>	<i>4,600 lbs</i>	<i>2nd floor Building 134</i>	<i>50 lbs Bags</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Anti-Foam 30L</i>	<i>470 lbs</i>	<i>WWTP Building 133</i>	<i>55-gallon drums</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Caustic</i>	<i>1,000</i>	<i>WWTP Building 133</i>	<i>Small bulk tank</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Lime Regular</i>	<i>2,800 lbs</i>	<i>WWTP Building 133</i>	<i>Bags</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Lime Quick</i>	<i>1,250 lbs</i>	<i>WWTP Building 133</i>	<i>Bags</i>	<i>Interior storage all drainage to WWTP</i>

Storage Type	Chemical Type	Volume (gallons, unless noted)	Location	Type of container	Type of Containment
	<i>Surfloc 942</i>	<i>350</i>	<i>WWTP Building 133</i>	<i>Tote</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Sulfuric acid (Pending new PE approved design)</i>	<i>40</i>	<i>Screen Building 132</i>	<i>55-gallon drum</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Dispersal HP-2500</i>	<i>522 lbs</i>	<i>Boiler Building 117</i>	<i>55-gallon drum</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Hydrogen Peroxide (50%)</i>	<i>500 lbs</i>	<i>Boiler Building 117</i>	<i>55-gallon drum</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Oxotrol DS</i>	<i>552 lbs</i>	<i>Boiler Building 117</i>	<i>55-gallon drum</i>	<i>Interior storage all drainage to WWTP</i>
	<i>PS-939 Clayton</i>	<i>522 lbs</i>	<i>Boiler Building 117</i>	<i>55-gallon drum</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Salt Crystal</i>	<i>900 lbs</i>	<i>Boiler Building 117</i>	<i>50 lbs Bags</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Volamine RL-202</i>	<i>487 lbs</i>	<i>Boiler Building 117</i>	<i>55-gallon drum</i>	<i>Interior storage all drainage to WWTP</i>

Storage Type	Chemical Type	Volume (gallons, unless noted)	Location	Type of container	Type of Containment
	<i>Liquid Polymer Totes</i>	550	WWTP Building 133	<i>Polyethylene Tank</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Liquid Polymer Storage Tank</i>	500	WWTP Building 133	<i>Polyethylene Tank</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Dry Polymer Mix Tank</i>	600	WWTP Building 133	<i>Fiberglass</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Anti-Foam Drums – TS 4400</i>	415	WWTP Building 133	<i>Polyethylene Tank</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Anti-Foam Drums – FG 710</i>	450	WWTP Building 133	<i>Polyethylene Tank</i>	<i>Interior storage all drainage to WWTP</i>
	<i>Anti-Foam Mix Tank</i>	50 x 2	WWTP Building 133	<i>Polyethylene Tank</i>	<i>Interior storage all drainage to WWTP</i>

**Material new to use and/or storage at the Facility in 2019 and not included as part of TIER II Reporting for RY 2018.*

7. If applicable, the date the Facility first started having the capacity to store oil above the Spill Prevention Control and Countermeasure ("SPCC") regulatory thresholds set forth in 40 C.F.R. § 112.1(d)(I) (i.e., the SPCC-regulated underground oil storage capacity of the Facility is greater than 42,000 gallons -or- the aboveground oil storage capacity of the Facility is greater than 1,320 gallons).
- *BMC acquired the Colrain MA Facility on June 29, 2007. The Facility was owned and operated by several other entities. BMC is not aware of when the aboveground storage capacity of 1,320 gallons was met or exceeded, requiring an SPCC Plan, as this was prior to BMC's tenure of the Facility.*
8. If a SPCC Plan was in effect at the time of the above mentioned spill, please submit a copy of the Plan, including written verification of the date such Plan was prepared, certified, and fully implemented.
- *A new SPCC Plan was provided to BMC for the Colrain Facility on August 29, 2016 and is provided under [Attachment-9](#).*
 - *According to BMC the August 2016 SPCC Plan was fully implemented upon receipt.*
9. If a SPCC Plan was prepared and implemented after the spill, a copy of such plan; or, if the SPCC Plan is being prepared but is not yet completed or fully implemented, a detailed schedule of when it will be completed and fully implemented. The schedule should include the name and address of the registered professional engineer preparing and certifying the plan. If the plan calls for the construction of secondary containment at the Facility, the schedule should include construction milestone dates. Or alternately, if the Facility is believed to no longer require an SPCC Plan, the reason for such determination.
- *See response to question 8 above.*
10. If the Facility is developing a SPCC Plan post-spill, please also include the following information:
- a. The cost of preparing the SPCC Plan;
 - b. The cost of implementing the Plan (including the cost of constructing secondary containment at the Facility); and
 - c. The ongoing annual costs of plan implementation (including training, inspections and record keeping).
- *See response to question 8 above.*

11. Provide a history of spill events at the Facility within the last five years (from the date of the spill in question). Explain the circumstances of each spill, the quantity of oil or hazardous material spilled, whether the oil or hazardous material reached any bodies of water and, if so, the names of such water bodies, and the quantity of oil or hazardous material entering such water bodies.

- *The BMC Facility has had no additional spill events over the last five (5) years.*

12. Provide any additional information which you wish to bring to the attention of EPA.

- *On August 28, 2011 Tropical Storm Irene resulted in experiencing flooding of up to 5 feet from grade surface at the BMC Facility. The USGS provisional estimate for the North River flow at the gage just downstream at Shattuckville was 53,000 cubic feet per second or more than 2 times a 500-year flood event. Tropical Storm Irene destroyed approximately 30 percent of the dam in 2011. As a result of this event, the lower levels of Building No. 116, Building No. 117, Building No. 118, the WWTP Lab, Building No. 132, and Building No. 134 flooded, destroying or irreparably damaging many Facility-specific records. Photographic evidence of this catastrophic event and its impact on the interior buildings of the BMC Facility are presented in Attachment-3. To that end, documentation related to Compliance, Production, Facility Componentry, Archives, Maintenance and WWTP are believed to have been lost through the August 2011 tropical storm/flood event.*

Please do not hesitate to contact the undersigned at (978) 256-6766 if you have any questions, comments, or require additional information.

Sincerely,

Omni Environmental Group

Stephen Van Wormer

Stephen Van Wormer
Project Manager

Gregory R. Morand

Gregory R. Morand, LSP
Principal

Enc: [Attachment-1 – USEPA RFI & Statement of Certification for Barnhardt Manufacturing Co.](#)
[Attachment-2 – Statements provided by BMC](#)
[Attachment-3 – Photographs](#)
[Attachment-4 – Sulfuric Acid Safety Data Sheets](#)
[Attachment-5 – Information Presented by Others](#)
[Attachment-6 – USGS Shattuckville Gauging Station Data](#)
[Attachment-7 – Site Plans and Summary Tables](#)
[Attachment-8 – Remediation Waste Documentation to Date](#)
[Attachment-9 – 2016 BMC Facility SPCC Plan](#)

cc: BMC Facility, 247 Main Road, Colrain, MA 01340

ATTACHMENT-1
USEPA RFI & STATEMENT OF CERTIFICATION
FOR BARNHARDT MANUFACTURING CO.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

**5 Post Office Square, Suite 100
BOSTON, MA 02109-3912**

**URGENT LEGAL MATTER - PROMPT AND COMPLETE REPLY IS REQUIRED
CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7019 0160 0000 7388 3249**

Gary James, Director
Barnhardt Manufacturing Co.
247 Main Rd
Colrain, MA 01340

OCT 07 2019

Re: Request for Information, Docket No. CWA-308-R01-FY19-32
Discharge of sulfuric acid from 247 Main Road Colrain, MA 01340 ("Facility"), on or
around September 1, 2019 into the North River

Dear Mr. James:

The U.S. Environmental Protection Agency ("EPA") has received a report of the above-referenced sulfuric acid discharge. To enable EPA to determine whether this discharge violated Section 311(b)(3) of the Clean Water Act (the "Act"), 33 U.S.C. § 1321, you are hereby required, under the authority of Sections 308 and 311(m) of the Act, 33 U.S.C. §§1318 and 1321(m), to answer the questions attached to this letter and to send your response, within 30 calendar days of your receipt of this letter, to:

Joseph Canzano
Spill Prevention Compliance Coordinator
U.S. Environmental Protection Agency, Region 1
5 Post Office Sq., Suite 100
Mail Code 04-4
Boston, MA 02109-3912

Please be advised that noncompliance with the Clean Water Act may subject you to both injunctive relief and penalties. EPA reserves its right to take further enforcement action pursuant to the Clean Water Act, including the right to seek civil penalties, for any violations, including those described above. Enclosed with this information request letter is an information sheet to assist small businesses understand and comply with environmental regulations.

Please be further advised that compliance with this information request is mandatory. Failure to respond fully and truthfully, or to adequately justify any failure to respond, within the time frame specified above, also constitutes a violation of the Clean Water Act subject to enforcement action, including the assessment of civil penalties. In addition, providing false, fictitious, or fraudulent statements or representations may subject you to criminal prosecution under 18 U.S.C. § 1001. If information or documents not known or available to you as of the date of submission

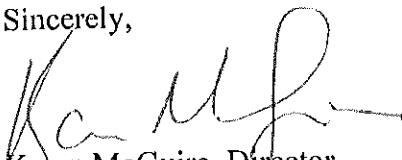
of your response to this request should later become known or available to you, you must supplement your response to EPA. Moreover, should you find at any time after the submission of the response that any portion of the submitted information is false or misrepresents the truth, you must notify EPA of this fact as soon as possible, and provide a corrected response.

You may, if you desire, assert a business confidentiality claim covering part or all of the information requested in the manner described by 40 C.F.R. § 2.203(b). All information claimed to be confidential should be contained on separate sheet(s) and should be clearly identified as "trade secret" or "proprietary" or "company confidential." These separate marked sheets should be submitted to EPA by hard copy or compact disc, and not by email. Information covered by such a claim will be disclosed by EPA only to the extent, and by means of the procedures, set forth in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when it is received by EPA, the information may be made available to the public without further notice to you.

Your response to this Request must be accompanied by the certificate that is signed and dated by the person who is authorized to respond to the Request on behalf of the company. The certification must state that your response is complete and contains all information and documentation available to you that is responsive to the Request. A Statement of Certification is Enclosed with this letter.

If you have any questions concerning your compliance with this letter, please contact Joseph Canzano the Region 1 Spill Prevention Compliance Coordinator, directly at (617) 918-1763, or have your attorney contact Jeff Kopf, Senior Enforcement Counsel, at (617) 918-1796.

Sincerely,



Karen McGuire, Director
Enforcement and Compliance Assurance Division

Enclosure (Small Business Resources Information Sheet)

cc: (via email unless otherwise noted)

Cogency Global, Inc., 45 School Street, Ste. 202, Boston, MA 02108 (Registered Agent)
(certified mail - #7019 0160 0000 7388 3225)

Jeff Kopf, Senior Enforcement Counsel, EPA Region 1 - Kopf.Jeff@epa.gov

Joseph Canzano, Spill Prevention Compliance Coordinator, EPA Region 1 -
canzano.joseph@epa.gov

Mary Jane O'Donnell, Chief, Waste & Chemical Compliance Section, ECAD, EPA
Region 1 - Odonnell.Maryjane@epa.gov

Matthew J. Sokop, P.E., Section Chief - Wastewater Management, Bureau of Water
Resources, MassDEP - Matthew.Sokop@mass.gov

Dan Kurpaska, MassDEP WERO - Daniel.J.Kurpaska@mass.gov

Enclosure to Information Request

Re: Discharge of Sulfuric Acid from Barnhardt Manufacturing Co., Colrain, MA Facility on or about September 1, 2019, into the North River

1. Please provide a detailed description of the above-referenced discharge, including:
 - a. Provide the date and time the discharge occurred, the date and time the discharge was discovered, and the date and time the discharge was reported to the National Response Center and any other appropriate federal, state and/or local agencies (e.g., EPA, state environmental agency, fire department). Include the name and phone number of the agency personnel contacted.
 - b. If the spilled material entered one or more bodies of water, or their adjoining shorelines, provide the name of each body of water.
 - c. Provide the quantity of material spilled, and the quantity entering a water body or adjoining shoreline. If the spilled material was a mixture, give the chemical name of each component in the mixture and its percentages by weight in the mixture. If the material spilled was petroleum, give the grade of oil.
 - d. Describe the pathway the spilled material traveled, starting from the original spill point (e.g., the tank in which the material was stored) to the most distant water body into which it flowed.
 - e. Provide the age of the tank from which the material spilled and the date and results of the last tank integrity test that was performed on the tank (e.g., pressure, shell thickness).
 - f. Describe any environmental damage resulting from the spill, such as fish kills, dead waterfowl or animals, stained vegetation or soil, etc. Provide any documentation in your possession related to the environmental damage resulting from the spill.
 - g. Describe any damage to public or private property, such as road surfaces, bridge abutments, dams, beaches, boat hulls, wells, etc.
 - h. Provide a summary of events immediately preceding the spill event, including the probable cause of the spill.
 - i. Describe any actions taken to control and/or remove the spilled material from the environment or to mitigate its effects on the environment, including a summary of the costs of such actions. Please provide copies of all clean-up contractor invoices and manifests.
 - j. Describe any measures taken after the spill event to prevent a recurrence, including the costs of such measures.
 - k. Provide the names, titles, addresses and phone numbers of employees and officials you believe to have knowledge of the facts surrounding the spill event.
 - l. Provide copies of any investigative reports by state environmental agencies, state or local police, fire departments, insurance companies, etc.

2. Provide the name, address, phone number of the Facility's owner at the time of the spill.
3. Provide the name, address, phone number of the Facility's operator at the time of the spill, if different from the owner.
4. Provide the name, address, and phone number of any additional party that installed or provided maintenance to the tank from which the material spilled, and provide any documents relating to the permitting and licensing of the tank from which the material spilled.
5. Provide the date the Facility first began operation and, if different, the date the current owner took over ownership of the Facility. If the Facility is operated by an entity other than the owner, also include the date the current operator took over operation of the Facility.
6. Provide a list of all the oil storage capacity at the Facility at the time of the spill, both underground and aboveground (including, tanks, drums, transformers, oil-filled systems, etc.) and the type of oil stored in each container. Indicate each container's age and method of construction (e.g., single or double wall, steel or fiberglass). Also indicate whether any secondary containment was provided around each container, and, if so, its method of construction and the total volume it can contain. Under 40 C.F.R. § 112.2, "oil" is defined as oil of any kind or in any form, including but not limited to petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil.
7. If applicable, the date the Facility first started having the capacity to store oil above the Spill Prevention Control and Countermeasure ("SPCC") regulatory thresholds set forth in 40 C.F.R. § 112.1(d)(1) (i.e., the SPCC-regulated underground oil storage capacity of the Facility is greater than 42,000 gallons -or- the aboveground oil storage capacity of the Facility is greater than 1,320 gallons).
8. If a SPCC Plan was in effect at the time of the above mentioned spill, please submit a copy of the Plan, including written verification of the date such Plan was prepared, certified, and fully implemented.
9. If a SPCC Plan was prepared and implemented after the spill, a copy of such plan; or, if the SPCC Plan is being prepared but is not yet completed or fully implemented, a detailed schedule of when it will be completed and fully implemented. The schedule should include the name and address of the registered professional engineer preparing and certifying the plan. If the plan calls for the construction of secondary containment at the Facility, the schedule should include construction milestone dates. Or alternately, if the Facility is believed to no longer require an SPCC Plan, the reason for such determination.

10. If the Facility is developing a SPCC Plan post-spill, please also include the following information:
- a. The cost of preparing the SPCC Plan;
 - b. The cost of implementing the Plan (including the cost of constructing secondary containment at the Facility); and
 - c. The ongoing annual costs of plan implementation (including training, inspections and record keeping).
11. Provide a history of spill events at the Facility within the last five years (from the date of the spill in question). Explain the circumstances of each spill, the quantity of oil or hazardous material spilled, whether the oil or hazardous material reached any bodies of water and, if so, the names of such water bodies, and the quantity of oil or hazardous material entering such water bodies.
12. Provide any additional information which you wish to bring to the attention of EPA.

Statement of Certification for Barnhardt Manufacturing Co.

(To be returned with Response to Information Request)

I declare under penalty of perjury that I am authorized to respond on behalf of Barnhardt Manufacturing Co. I certify that the foregoing responses and information submitted were prepared under my direction or supervision, and that I have personal knowledge of all matters set forth in the responses and the accompanying information. I certify that the responses are true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

By

(Signature)

Lewis B. Barnhardt

(Print Name)

President/COO -

(Title)

11/11/19

(Date)

ATTACHMENT-2
STATEMENTS PROVIDED BY BMC

9-1-19

Bill Trenholm

I was working the 6 pm to 6 am shift in the boiler room from Saturday August 31 to Sunday September 1. The plant was not running so the boiler was not running for steam. Conducting walking checks of the facility I was in the area of the screen building near the sulfuric acid tank at 3 am and did not hear (very quiet with the facility down) nor see any issues with the tank. When the day shift operator arrived at 5:45 am we began discussing the night's events for our turn over meeting as we always do. I was saying to Joe (day shift operator) I was going to be starting on day shift soon and would be unloading chemical tankers. The boiler again was not running as it was Sunday and the plant was not running. While discussing this Joe said he would show me the unloading areas as he has unloaded chemicals in the past. The first area we went to as it is the closest to the boiler room was the screen building at the wastewater plant which includes the sulfuric acid tank. While approaching the tank we could hear the sound of a liquid splashing against a hard surface. Upon investigation we saw that it was a leak on the tank coming from the backside of the tank. The acid was squirting over the wall and hitting the side of the building due to the holes location. Joe walked around the building and moved some dirt to stop the acid from running down the swale behind the tank took the spill kit drum from the boiler room and placed it so the flow was directed into the concrete containment under the tank. Joe made phone calls to Mark and KG. When they arrived I asked if I was needing to stay as I had to come back in at 6 pm and was told I was all set to leave.

When I returned for my night shift the police, fire were at the plant, and Mark and KG were pumping out the tank.

William J Trenholm

To whom it may concern,
On the morning of September 1, 2019,
I arrived at work at about 5:50 AM.
During turnover with Bill Trenholm,
a discussion of his impending job in
the wastewater treatment plant brought
up the subject of where the valve to
the wet well was, as it's required
to be open when receiving sulfuric acid.
I thought it would be easier to
show him then explain it.

Upon arrival at the Screen Building
we could see that there was sulfuric
acid leaking from the tank. A stream
of acid was coming from near the
East Flange with some of the stream
going over the containment. I told
Bill to get the spill kit at the
Boiler Pump house, and I went to
the culvert leading to the creek and began
shovelling sand to prevent further
flow towards the creek.

Bill returned and took the spill-
kit container and placed it on top
of the containment wall, diverting
it completely into the containment area.

At that point I felt we had contained the spill, so I called Mark Thibodeau to inform him of the situation. When Mark arrived, he had me call Larry Couch. I did so, and left him a voicemail and returned to the spill area and let Mark know. Mark then called Larry himself, and I returned to the Boiler Room and monitored on the camera.

Joseph J. Shultz



On Sept 1st 2019 I was asked by the Director of Operations, Tom Robinson, to travel along the river below the plant to observe the reported dead fish in the river. The call I received was at dusk, almost dark. I stopped in multiple locations along the river, ending in the center of Shelburne Falls at the vehicle bridge. During my attempts to investigate the reported dead fish, I was unable to witness dead fish in the river.

A handwritten signature in dark ink, appearing to read "LJ Couch".

Larry J. Couch

Quality & EHS Eng. Mgr.

Barnhardt Manufacturing Co.



I received a call at 6 am Sunday 9-1-19 from Joe Shutta regarding the bulk sulfuric tank at the WWTP was leaking. Came in at 6:10 and found the breach on the tank was the nipple on the east side of the tank had a leak approximately one quarter inch in diameter. Due to the head pressure of the tank contents above the hole this hole was pushing the acid over and hit the side of the screen building just outside of the tank containment as well as the parking lot containment. A plastic container from a spill kit was used to catch the acid and direct it back into the tank containment. The drainage swale leading from the parking lot to the tailrace had been diked using sand as well. These steps were taken prior to my arrival.

At this point we used sodium bicarbonate (baking soda) to neutralize the drainage swale. A visual inspection was done at the base of the swale where it makes contact with the tail race and at that time the acid had not appeared to have reached the water. Spreading some baking soda onto the rocks closet to the water showed no reaction so in our opinion nothing had made it to the water. Larry had contacted Mass DEP regarding the issue. After allowing the baking soda to react we then removed the contaminated soil and placing it in metal drums. We removed below what looked like the penetration point and verified no reaction with the baking soda. I went to Greenfield and purchased two 550 gallon poly tanks and 24 -14lb bags of baking soda and we began a recovery of good product. This was done by using the day tank as a pump off point and between the two tanks, several drums and an IBC tote were able to save 1550 gallons of usable product. Mark purchased a roll of plastic and the swale was covered as it was supposed to rain



Monday. We also tented the tank for the same reason. In the afternoon the boiler operator notified Mark and I of the presence of the Colrain fire dept. at the entrance to the driveway. We were then notified by the FD of a fish kill downstream and that the Mass DEP was on site. I tested pH on the tail race and down call road and found the pH to be 7.5 and 7.7 respectfully. These are what I find for normal in the river. While down Call Rd I found a small fish kill 10-15 just below the sample point. The leak had slowed to a very slight amount by 9pm, so the boiler room was asked to observe and report if any issues arose.

9-2-19

Arrived at the plant at 5 am to check with the boiler room as to how the night went. He had said that it was still dripping into the containment but no other issues. I left at 7 am and went to Hinsdale NH for when tractor supply opened. I purchased a 1550 and a 325 gallon poly tank (the two biggest in stock) and also stopped a purchased another 24 bags of baking soda.

When I arrived back Mark had set a pump up inside the building to pump out the containment. After pumping 800 gallons it appeared we would not have the capacity so I went to TS in North Adams and purchased another 1550 tank. Once the containment was empty (about 10 gallons left but the pump would not prime) we spread 20 bags of baking soda in the containment to neutralize. After a rough calculation it was determined that we recovered approx. 470 gallons more than what was being used as an inventory. This tank has not been emptied as far back as I remember and did not have a working gauge. Once the transfer pump to the Bleachery stopped we would order a load, calculate the gallons from the pounds and use that for a level.

Keith Gamm 11 9-6-19

15 →

On Monday August 26, 2019 at 11:50 Larry Couch called me to his office and said Keith Gammell sent an e-mail stating the sulfuric tank was leaking coming from the sulfuric acid tank down at the screen building. I went down to the tank but could not find it, I called Keith over to show me what he saw for a drip. Keith pointed to the pipe that holds the level transmitter for the tank. It appeared to be corrosion on the pipe next to the weld. Sulfuric will react with the air and cause a flake. There was a little rust in that area next to the weld on the tank. There appeared to be a drip coming from the flange that was on the side of the tank, my first impression was the gasket is leaking. The next day the 27th Tom Robinson was here for a visit so I showed him the area of concern we decided to put this on the capital project to replace the tank and not take any more loads. Over the next couple days we decided to instead of replacing the tank to just get rid of it and go to a similar way of receiving sulfuric as Charlotte does in totes. On the 29th Keith noticed a drip coming from the same area but was being contained within the containment area. The drip appeared to be next to the weld on the tank it took several minutes for the drip to actually drip, By Applying baking soda there was no reaction in the containment but there was a little water from rain the week before. Keith also did the same thing the next day but no reaction. We then installed a bucket in the containment to gauge the amount that was dripping. On the 30th we noticed that the bucket had barely enough to cover the bottom of the bucket. Bucket was left underneath the drip so it could be checked on.

On Sunday morning I received a call around 6:15 AM that the acid tank had a hole in it, I got up and came straight into the mill Joe Shutta and Bill Trenholm were here they had stopped the acid from spraying over the containment area and had made a dam with stone and dirt so the acid would not travel any further. It appeared that they had stopped the acid from reaching the tailrace. Keith Gammell showed up right about that time so we changed into our chemical suits and started to address the issues. Keith got some sodium bicarbonate to neutralize the acid and I started to pump the acid from the tank to the day tank in the Bleachery. Larry Couch showed up and said he would call it in to the

state at that point it did not appear to have gone into the tailrace. Keith and Larry shoveled up the contaminated dirt into metal drums and then Keith said he would go and get some plastic containers so I could keep pumping off the acid tank I continued pumping until around 5:00 pm the fire department and DEP showed up and said there was dead fish in the river, Keith and the person from DEP Joel Rees went down the river to test the PH. I continued pumping off the tank until 7:30 PM when the pump had reached all it could pump. The next day Monday we pumped all the acid that was in the containment structure into two tanks in the screen building.

ATTACHMENT-3
PHOTOGRAPHIC LOG

Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 1 Spray of Sulfuric Acid from AST (9/1/2019).



Photo 2 Sulfuric Acid impacts leading within the drainage swale (9/1/2019).



Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 3 Sulfuric Acid impacts leading up to the Tailrace (9/1/2019).



Photo 4 Eastern end of the former AST. Southern wall of the Screen building. Looking West (9/4/2019).



Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 5 Eastern end of the drainage swale near the outfall. Looking south. Note the sodium bicarbonate (9/4/2019).



Photo 6 Eastern end of the drainage swale looking west. Note the sodium bicarbonate (9/4/2019).



Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 7 Eastern end of former containment dike. Southern wall of the screen building (9/4/2019).



Photo 8 Drainage swale looking west towards the tank. Note the limited excavation (9/4/2019).



Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 9 Eastern end of the drainage swale and discharge outfall to the Tailrace (9/4/2019).



Photo 10 Tailrace looking south towards the North River (9/5/2019)



Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 11 Confluence of the Tailrace and North River (9/5/2019).



Photo 12 View of the North River looking South (9/5/2019).



Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 13 View of the North River looking South (9/5/2019).



Photo 14 Sediment Sock and Silt Fence Install on 10/21/2019.



Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 15 Tank removal operations (10/7/2019).



Photo 16 Tank removal operations (10/7/2019).



Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 17 Tank decontamination (10/22/2019).



Photo 18 Excavation of impacted soil south of Screen Building (10/28/2019).



Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 19 Excavation of impacted soil south of Screen Building (10/28/2019).



Photo 20 Restoration of Drainage Swale (10/29/2019).



Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 21 Restoration of Drainage Swale (10/29/2019).



Photo 22 Restoration of Drainage Swale (10/30/2019).



Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 23 Restoration of Drainage Swale (10/30/2019).



Photo 24 Flood Waters during Hurricane Irene (August 2011).



Barnhardt Manufacturing Company, 247 Main Road, Colrain, MA – Photo Log

Photo 25 Highwater mark of Hurricane Irene floodwaters (August 2011)



Photo 26 Flood Waters during Hurricane Irene (August 2011). Note the Screen Building on the right.



ATTACHMENT-4
SULFURIC ACID SAFETY DATA SHEETS



Issue Date 02-May-2016

SAFETY DATA SHEET

Revision Date 02-May-2016

Version 2

SECTION 1: Identification of the mixture/mixture and of the company/undertaking

1.1. Product identifier

Safety data sheet number	920044
Product Name	Sulfuric Acid
Index number	016-020-00-8
Trade Name	Sulfuric Acid 77%-100%
EC No.	231-639-5
CAS No.	7664-93-9
Chemical Name	Sulfuric acid
Synonyms	Dihydrogen Sulfate; Oil of vitriol; Vitriol Brown Oil; Acide sulfurique; 60 Deg Technical; 66 Deg Technical; 93% Technical; 1.835 Electrolyte; 98 % Technical; 99 % Technical; 100 % Technical.
Formula	H ₂ SO ₄
Molecular weight	98.08 g/mol

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use	Chemical industries. Water treatment chemical. Manufacture of pulp, paper and paper products. Fertilizer.
Uses advised against	Not available.

1.3. Details of the supplier of the safety data sheet

Manufacturer	<ul style="list-style-type: none">- NorFalco LLC, Three Stamford Plaza, 301 Tresser Boulevard, Stamford, Connecticut, 06901-3244 USA.- NorFalco Sales, a division of Glencore Canada Corporation, 100 King W., Toronto, ON, Canada, M5X 1E3.- Noranda Income Limited Partnership (CEZinc), Salaberry-de-Valleyfield (Quebec)Canada J6T 6L4.- Horne Smelter-A Glencore company, Rouyn-Noranda (Quebec) J9X 5B6.- Brunswick Smelting-A Glencore company, Belledune, New Brunswick E0B 1 G0.- Sudbury integrated Nickel Operations-A Glencore company, Falconbridge, Ontario P0M 1S0.
Website	www.norfalco.com.
Contact Point	General Office : 1-416-775-1400
E-mail address	NorfalcoTechnicalService@glencore-ca.com

1.4. Emergency telephone number

Emergency Telephone	Medical emergency in Canada : 1-418-656-8090 Glencore 24/24 7/7 : 1-760-476-3962 (333261)
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**Transportation Emergency
Telephone**

Canada: 1-877-ERP-ACID (377-2243)
CANUTEC: 1-613-996-6666
1-888-CAN-UTEC (226-8832)
USA: 1-800-424-9300 CHEMTREC

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Full text of H- and EUH-phrases: see section 16

Skin corrosion/irritation

Category 1 H314

Classification according to Directive 67/548/EEC or 1999/45/EC

Full text of R-phrases: see section 16

Hazard symbols

C - Corrosive

R-code(s)

C;R35

2.2. Label elements**Product identifier**

Hazard pictograms : Corrosive

Signal word : Danger

Contains : sulfuric acid

H314 - Causes severe skin burns and eye damage

Precautionary Statements - EU (§28, 1272/2008)

P260-Do not breathe dust fume/ gas/ mist vapors/ spray.

P264-Wash hands, face and skin thoroughly after handling. P280-Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331-IF SWALLOWED: rinse mouth. DO NOT induce vomiting.

P303+P361+P353-IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P363-Wash contaminated clothing before reuse.

P304+P340-IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P310-Immediately call a POISON CENTER or doctor/physician.

P321-Specific treatment (see on this label).

P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501-Dispose of contents/container in full compliance with Federal, Provincial and local regulations.

2.3. Other hazards

Extremely corrosive. Harmful or fatal if swallowed. Harmful if inhaled. Severe eyes and skin irritation. Possibility of damage to the upper respiratory tract and lung tissues.

Environmental hazard: Strong acid. Highly toxic to plants and to aquatic organisms.
Not a PBT or vPvB substance or mixture.

Risk phrases :

R35-Causes severe burns

Safety phrase :

S1-Store locked up

S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S30- Never add water to this product

S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WHMIS classification (Canada)

CLASS D-1A: Very toxic material causing immediate and serious effects

CLASS E : Corrosive material

SECTION 3: Composition/information on ingredients**3.1 Substances**

Chemical Name	EC No.	CAS No.	Weight-%	Classification GHS /CLP (Regulation (EC) No. 1272/2008)
Sulfuric acid	231-639-5	7664-93-9	77-100	Skin Corr. 1A (H314)

Additional information

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

SECTION 4: First aid measures**4.1. Description of first aid measures**

General advice	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Inhalation	If not breathing, give artificial respiration. Take precautions to avoid secondary contamination by residual acids. Difficult breathing : Give oxygen.
Skin contact	Rinse skin with water/shower for 15 minutes (Pay particular attention to : Folds, crevices, creases, groin). While the patient is being transported to a medical facility, continue the application of cold, wet compresses. <i>Notes to physicians : If medical treatment must be delayed, repeat the flushing with tepid water or soak the affected area with tepid water to help remove the last traces of sulfuric acid. Creams or ointments SHOULD NOT be applied before or during the washing phase of the treatment. Call a physician if irritation persists. Wash contaminated clothing before reusing.</i>
Eye contact	Consult a physician. If medical treatment must be delayed, repeat the flushing with tepid water or soak the affected area with tepid water to help remove the last traces of sulfuric acid
Ingestion	Do not induce vomiting. Conscious and alert person : Rinse mouth with water and give 1/2 to 1 cup of water or milk to dilute material. Spontaneous vomiting : Keep head below hips to prevent aspiration ; Rinse mouth and give 1/2 to 1 cup of water or milk. UNCONSCIOUS person : DO NOT induce vomiting or give any liquid. Immediately obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Corrosive to the eyes and may cause severe damage including blindness. Causes burns.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically. Symptoms may be delayed.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

ERG (Emergency Response Guidebook) : Guide 137

When material is not involved in fire, do not use water on material itself.

Small Fire Dry chemical or CO₂. Move containers from fire area if you can do it without risk.

Large Fire Flood fire area with large quantities of water, while knocking down vapors with water fog. If insufficient water supply: knock down vapors only.

Fire involving Tanks or Car/Trailer Loads :

Cool containers with flooding quantities of water until well after fire is out. Do not get water inside containers. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire.

Unsuitable extinguishing media

No information available

5.2. Special hazards arising from the substance or mixture

Non-combustible.

Hazardous combustion products: Releases of sulfur dioxide at extremely high temperatures.

Fire hazard : Not flammable

Explosion hazard : Reacts with most metals, especially when dilute : Hydrogen gas release (Extremely flammable, explosive). Risk of explosion if acid combined with water, organic materials or base solutions in enclosed spaces (Vaccum trucks, tanks). Mixing acids of different strengths/concentrations can also pose an explosive risk in an enclosed space/container.

5.3. Advice for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Move containers from fire area if you can do it without risk.

Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Generates heat upon addition of water, with possibility of spattering. Wear full protective clothing. Runoff from fire control may cause pollution. Neutralize run-off with lime, soda ash, etc., to prevent corrosion of metals and formation of hydrogen gas. Wear self-contained breathing apparatus if fumes or mists are present.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****Personal precautions**

Ensure adequate ventilation, especially in confined areas. Ventilate affected area. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear protective gloves/protective clothing and eye/face protection.

For emergency responders

Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protection recommended in Section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

6.3. Methods and material for containment and cleaning up

Methods for containment Dike large spills, and cautiously dilute and neutralize with lime or soda ash, and transfer to waste water treatment system. Prevent liquid from entering sewers, waterways, or low areas. If this product is spilled and not recovered, or is recovered as a waste for treatment or disposal, the Reportable Quantity (U.S. DOT) is 1 000 lbs and 5 l or 5 kg (Section 8 TDG Canada) (Based on the sulfuric acid content of the solution spilled). Comply with Federal, State, Provincial, and local regulations on reporting releases.

Methods for cleaning up Clean up in accordance with all applicable regulation.

6.4. Reference to other sections

Use personal protection recommended in Section 8. For waste disposal, see section 13.

SECTION 7: Handling and Storage**7.1. Precautions for safe handling**

Advice on safe handling DO NOT get in eyes, on skin, or on clothing. Avoid breathing vapours or mist. Wear approved respirators if adequate ventilation cannot be provided. Wash thoroughly after handling. Ingestion or inhalation : Seek medical advice immediately and provide medical personnel with a copy of this SDS. NEVER add water to acid. Avoid aerosol formation.

General Hygiene Considerations Use personal protection recommended in Section 8. Wash hands thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Sulfuric acid must be stored in containers or tanks that have been specially designed for use with sulfuric acid. DO NOT add water or other products to contents in containers as violent reactions will result with resulting high heat, pressure and/or generation of hazardous acid mists. P405-Store locked up. Keep containers away from heat, sparks, and flame. All closed containers must be safely vented before each opening. For more information on sulfuric acid tanks, truck tanks and tank cars including safe unloading information go to www.norfalco.com.

Packaging materials Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3. Specific end use(s)

Specific use(s) For detailed information, see section 1.

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

Chemical Name	ACGIH (U.S.A.) TLV-TWA (mg/m ³)	OSHA (U.S.A.) PEL-TWA (mg/m ³)
Sulfuric acid 7664-93-9	0.2	1

Sulfuric acid : Exposure limits may be different in other jurisdictions.

NIOSH REL-TWA (≤10 hours) : 1 mg/m³.

IDLH : 15 mg/m³

Consult local authorities for acceptable exposure limits.

8.2. Exposure controls**Engineering Controls**

Good general ventilation should be provided to keep vapour and mist concentrations below the exposure limits.

Personal protective equipment

Chemical splash goggles ; Full-length face shield/chemical splash goggles combination ; Acid-proof gauntlet gloves, and boots ; Long sleeve wool, acrylic, or polyester clothing under an acid proof suit ; Appropriate NIOSH respiratory protection if acid mist is present. An apron can be used in place of acid proof suit in laboratory environment, or in handling small volumes of sulfuric acid. A formal risk assessment should be performed before following this recommendation to ensure exposure is minimized. In case of emergency or where there is a strong possibility of considerable exposure, wear a complete acid suit with hood, boots, and gloves. If acid vapour or mist are present and exposure limits may be exceeded, wear appropriate NIOSH respiratory protection.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state		liquid	
Appearance	Oily, Clear to turbid		Odor Odorless
Color	Colorless to light grey		Odor threshold No data available
Property	Values		Remarks • Method
pH	< 1		No information available
Melting point / freezing point	-35 °C to 11 °C (-31°F to 52°F)		
Boiling point / boiling range	193 °C to 327 °C (379°F to 621°F) @ 760mm Hg		No information available
Flash point			No information available
Evaporation rate			No information available
Flammability (solid, gas)			No information available
Flammability Limit in Air			
Upper flammability limit:			No information available
Lower flammability limit:			No information available
Vapor pressure	<0.3 mmHg @ 25 °C (77 °F) < 0.6 mm hg @ 38 °C (100 °F)		
Vapor density			No information available
Water solubility			No information available
Solubility(ies)	Miscible		
Partition coefficient			No information available
Autoignition temperature			No information available
Decomposition temperature			No information available
Kinematic viscosity			No information available
Dynamic viscosity	22.5 cP at 20°C (68°F)		For Sulfuric acid 93 %
Explosive properties			Not explosive
Oxidizing properties			Not an oxidizer
9.2. Other information			
Softening point			No information available
Molecular weight	98.08 g/mol		
Volatility	< 1 (Butyl acetate=1.0)		No information available
Bulk density			No information available

GRADE	Boiling point		Freezing point		Density
	DEG°C	DEG°F	DEG°C	DEG°F	
60 DEG TECHNICAL	193	380	-12	10	1.706
66 DEG or 93% TECHNICAL	279	535	-35	-31	1.835
1.835 ELECTROLYTE	279	535	-35	-31	1.835
98 % TECHNICAL	327	621	-2	29	1.844
99 % TECHNICAL	310	590	4	40	1.842
100 % TECHNICAL	274	526	11	51	1.839

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts violently with water, organic substances and base solutions with evolution of heat and hazardous mists.

10.2. Chemical stability

Stable under normal conditions, at ambient temperature.

10.3. Possibility of hazardous reactions

Possibility of Hazardous Reactions

Hazardous polymerization does not occur. Reacts violently with water.

10.4. Conditions to avoid

Heat, sources of ignition.

10.5. Incompatible materials

Vigorous reactions with : Water ; alkaline solutions ; Metals, metal powder ; Carbides ; Chlorates ; Fulminates; nitrates; Picrates ; Strong oxidizing, reducing, or combustible organic materials. Hazardous gases are evolved on contact with chemicals such as cyanides, sulfides, and carbides. Sulfuric acid reacts with metal to produce hydrogen, a flammable and potentially explosive gas. Hydrogen reacts with sulfides and generates hydrogen sulfide (Highly toxic gas). *NEVER add water directly to sulfuric acid because a violent exothermic reaction may occur.*

10.6. Hazardous decomposition products

Possibility of decomposition if heated and in contact with sources of ignition. Release of toxic gases and vapours (Sulfur oxides (SO₂, SO₃)).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Route of entries: Ingestion. Inhalation. Skin and eye contacts.

Acute toxicity ORAL acute (LD50): 2 140 mg/kg (Rat). INHALATION acute (LC50, 2 hours): 510 mg/m³ (Rat) ; 320 mg/m³ (Mouse). (RTECS).

Acute effects May be fatal if inhaled or ingested in large quantity. Liquids or acid mists: May produce tissue damage: Mucous membranes (Eyes, mouth, respiratory tract). Extremely dangerous by eyes (conjunctivitis, permanent eye damage) and skin contact (Corrosive) (Severe skin burns, scars). Severe irritant for eyes : Inflammation (Redness, watering, itching). Very dangerous in case of inhalation at high concentrations (Mists) : May produce severe irritation of respiratory tract (Coughing, shortness of breath, choking). Maintain observation of the patient for delayed onset of pulmonary oedema.

Chronic effects	<p>Target organs for acute and chronic overexposure (NIOSH 90-117) : Respiratory system, eyes, skin, teeth.</p> <p>Acid mists : Overexposure to strong inorganic mists containing sulfuric acid : Possibility of laryngeal cancer (HSBD, IARC). Possibility of irritation of the nose and throat with sneezing, sore throat or runny nose. Headache, nausea and weakness. Gross overexposure : Possibility of irritation of nose, throat, and lungs with cough, difficulty breathing or shortness of breath ; Pulmonary edema with cough, wheezing, abnormal lung sounds, possibly progressing to severe shortness of breath and bluish discoloration of the skin. Symptoms may be delayed. Repeated or prolonged exposure to mists may cause : Corrosion of teeth.</p> <p>Contact (Skin) : Possibility of corrosion, burns or ulcers. Contact with a 1 % solution: Possibility of slight irritation with itching, redness or swelling. Repeated or prolonged exposure (Mist) : Possibility of irritation with itching, burning, redness, swelling or rash.</p> <p>Contact (Eye) : Possibility of corrosion or ulceration (Blindness may result). Repeated or prolonged exposure (Mist) : Possibility of eye irritation with tearing, pain or blurred vision.</p> <p>Ingestion : Immediate effects of overexposure : Burns of the mouth, throat, esophagus and stomach, with severe pain, bleeding, vomiting, diarrhea and collapse of blood pressure. Damage may appear days after exposure.</p>
Serious eye damage/eye irritation	Risk of serious damage to eyes. Effects of exposure on eye may include pain, redness, severe deep burns and loss of vision.
Irritation - Sensitization	Severe irritation: 5 mg/30 s, rinsing (eyes, rabbit). (RTECS). Sensitisation: Not known.
Germ cell mutagenicity	Cytogenetic analysis : 4 mmol/l (Ovaries, Hamster). (RTECS). Not teratogenic (Mice, rabbits)..
Carcinogenicity	Strong inorganic acid mists containing sulfuric acid: PROVEN (Human, Group 1, IARC) SUSPECTED (Human, Group A2, ACGIH) ; Group X (NTP) ; Classification not applicable to sulfuric acid and sulfuric acid solutions.
Reproductive toxicity	Inhalation (Lo CT) : 20 mg/m ³ /7 hour (6-18 days pregnant) reproductive effects: Specific developmental abnormalities (Musculoskeletal system) (Rabbit). (RTECS).
STOT - single exposure	Test data conclusive but not sufficient for classification.
STOT - repeated exposure	Test data conclusive but not sufficient for classification.
Other adverse effects	Be aware that symptoms of lung oedema (shortness of breath) may develop up to 24 hours after exposure.
Aspiration hazard	Not classified.

*Eating, drinking and smoking must be prohibited in areas where this material is handled and processed.
Wash hands and face before eating, drinking and smoking.*

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity : Slightly to moderately toxic.

Toxicity to aquatic life increases with lowering pH. At pH lower than 5, only a few fish species can survive and at pH lower than 4, aquatic life is rare.

Chemical Name	Algae/aquatic plants	Fish	Crustacean
Sulfuric acid	-	Bluegill Sunfish (<i>Lepomis macrochirus</i>) 16 mg/l (LC50 ; 48 hours)	Flea water (<i>Daphnia magna</i>) > 100 mg/l. (EC50, 48 h)

EYE : Concentrated compound is corrosive. 10 % solution : Moderate eye irritant.

SKIN : Concentrated compound is corrosive. 10 % solution: Slight skin irritant.

Single and repeated exposure : Irritation of the respiratory tract ; Corrosion of the respiratory tract ; Lung damage ; Labored breathing ; Altered respiratory rate ; Pulmonary oedema.

12.2. Persistence and degradability

Sulfate ion : Ubiquitous in the environment. Metabolized by micro-organisms and plants.

12.3. Bioaccumulative potential

The product is not bioaccumulating.

Sulfate ion : Ubiquitous in the environment. Metabolized by micro-organisms and plants without bioaccumulation.

12.4. Mobility in soil The product is water soluble and naturally present in soil as sulfate ions.

Mobility in soil

Easy soil seeping under rain action

Mobility

The product is water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects

The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic.

Due to the product's composition, particular attention must be taken for transportation and storage. Protect from rain because the run-off water will become acidic and may be harmful to flora and fauna.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Cleaned-up material may be an hazardous waste on *Resource Conservation and Recovery Act* (RCRA) on disposal due to the corrosivity characteristic. DO NOT flush to surface water or sanitary sewer system. Comply with Federal, State, and local regulations. If approved, neutralize and transfer to waste treatment system.

Contaminated packaging Since emptied containers retain product residue, follow label warnings even after containers is emptied.

Other Information No information available. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14: Transport information

Proof of classification



Classification of Sulfuric Acid as a Class 8 corrosive completed on January 9th 2015.
Based on existing studies, Sulfuric acid is corrosive if in contact with skin or eyes, or if inhaled or ingested.
Classified corrosive based on the classification method used in the *UN manual Tests and Criteria, referred to by Transport Canada, section 37, Test Methods and Criteria Related to Substances of Class 8.*
As the substance has been shown to be corrosive to skin under the criteria of the OECD guideline 404, it has been concluded that Sulfuric acid is also corrosive to metal and therefore falls under class 8.
Test references: *OECD; SIDS Initial Assessment Reports for Sulfuric Acid (CAS No: 7664-93-9) for 11th SIAM (January 2001).*

TDG (Canada) Class 8 Packing Group II Corrosive
Reportable Quantity Any Quantity

PIN UN1830 SULFURIC ACID PGII

DOT (USA)

UN/ID no. 1830
Proper shipping name SULFURIC ACID with more than 51 % acid
Hazard Class 8
Subsidiary hazard - class
Packing Group II
DOT/IMO label CORROSIVE
Reportable Quantity 1000 lbs (454 kg)
Shipping containers Tank Cars, Tank Trucks, Vessel

IMDG

UN/ID no. 1830
Proper shipping name SULFURIC ACID with more than 51 % acid
Hazard Class 8
Subsidiary hazard - class
Packing Group II
Marine pollutant No
Environmental hazard No
EmS-No. F-A, S-B

ERG Guide 137

IMSBC Code Not applicable

MARPOL Non marine pollutant

Read safety instructions, SDS and emergency procedures before handling.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

CEPA DSL (Canada) CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): On the Domestic Substances List (DSL) ; Acceptable for use under the provisions of CEPA
Reportable Quantity : 5 l or 5 kg
Sulfuric Acid is a Class B Drug Precursor under *Health Canada's Controlled Drugs and Substances Act* and *Precursor Control Regulations*

USA CERCLA Section 103 Hazardous substances (40 CFR 302.4); SARA Section 302 Extremely Hazardous Substances (40 CFR 355) : Yes; SARA Section 313, Toxic Chemicals (40 CFR 372.65) ; US: TSCA Inventory : Listed : Sulfuric acid (RQ) : 1 000 pounds (454 kg)

Sulfuric Acid is subject to reporting requirements of Section 313, *Title III of the Superfund Amendments and Reauthorization Act of 1986* (SARA). 40 CFR Part 372.

Certain companies must report emissions of Sulfuric Acid as required under *The Comprehensive Environmental Response, Compensation and Liability Act of 1980* (CERCLA), 40 CFR Part 302

For more information call the *SARA Hotline* 800-424-9346.

Strong Inorganic Acid Mists Containing Sulfuric Acid: Chemical listed effective March 14, 2003 to the *State of California. Proposal 65*.

U.S. FDA Food Bioterrorism Regulations : These regulations apply to Sulfuric Acid when being distributed, stored or used for Food or Food Processing.

TSCA (EPA, Toxic Substance Control Act) Chemical Inventory (40 CFR710) : Listed.

Classifications HCS Corrosive liquid
(U.S.A.)

European Union Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorizations and/or restrictions on use in EU:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NFPA (National Fire Protection Association) (U.S.A.)

Fire Hazard	Reactivity	Health	Special Hazard
0	2	3	ACID

NPCA-HNIS Rating

Fire Hazard	Reactivity	Health
0	2	3

15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out for these substances

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Indication of changes Section 14 – Proof of classification

Full text of H-Statements and R phrases referred to under section 3

H314 - Causes severe skin burns and eye damage

R35 - Causes severe burns

Legend

CLP : Classification, labeling, packaging of substances and mixtures (REACH)
DNEL : Derived No-Effect Level (REACH)
DSD : Dangerous Substances Directive (Directive 67/548/EEC)
DPD : Dangerous Preparations Directive (Directive 1999/45/EC)
EMS : Revised Emergency Response Procedures for Ships Carrying Dangerous Goods(IMO)
HSDB : Hazardous Substances Data Bank (USA)
IARC : International Agency for Research on Cancer.
NIOSH : National Institute of Occupational Safety and Health (USA)
NTP : U.S. National Toxicology Program (USA)
PNEC : Predicted No Effect Concentration
PBT : Persistent, bioaccumulative • toxic substances.
vPvB : Very persistent, very bioaccumulative substances.
REACH : Registration, Evaluation, Authorization and Restriction of Chemicals
RTECS : Registry of Toxic Effects of Chemical Substances (USA)
TWA : Total weight average
TLV : Threshold limit value
STOT : Specific target organ toxicity

References

- TLVs and BEIs (2014). Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices. ACGIH, Cincinnati, OH - <http://www.acgih.org>
- CCOHS (2014) - Canadian Centre for Occupational Health and Safety- <http://www.ccohs.ca/>
- CSST (2013) - Commission de la Sante et de la Sécurité du Travail (Quebec). Service du répertoire toxicologique - <http://www.reptox.csst.qc.ca/>
- HSDB (2014) - Hazardous Substances Data Bank. TOXNET® Network of databases on toxicology, hazardous chemicals, and environmental health. NLM Databases & Electronic Resources, U.S. National Library of Medicine, NHI, 8600 Rockville Pike, Bethesda, MD 20894 - <http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB>
- IARC - Monographs on the Evaluation of Carcinogenic Risks to Humans (collection) - IARC Publications <http://www.iarc.fr/en/websites/databases.php>
- IMO (2012). CARRIAGE OF DANGEROUS GOODS. INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG) CODE ANNEXES AND SUPPLEMENTS. Revised Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS Guide).
- NIOSH U.S. (2014) - Pocket Guide to Chemical Hazards - <http://www.cdc.gov/niosh/npg/>
- RTECS (2014). Registry of Toxic Effects of Chemical Substances, NIOSH, CDC. NIOSH RTECS http://www.cdc.gov/niosh-rtecs/E_U958940.html
- Toxicologie industrielle & intoxication professionnelle, 3e édition, Lauwerys.
- TSCA (2014)-U.S. EPA Toxic Substance Control Act, Chemical Inventory. System of Registries (SoR), Substance Registry Services http://iaspub.epa.gov/sor_internet/registry/substreg/searchandretrieve/substancesearch/search.do

Issue Date 02-May-2016**Revision Date** 02-May-2016**Previous revision date** 09-Jan-2015

Revision Note For further information, see NorFalco Inc. Sulfuric Acid «Storage and Handling Bulletin». Because of its corrosive characteristics, Sulfuric Acid should not be used in sewer or drain cleaners or any similar application; regardless of whether they are formulated for residential, commercial or industrial use. NorFalco will not knowingly sell sulfuric acid to individuals or companies who repackage the product for sale as sewer or drain cleaners, or any other similar use.
The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.
For additional information, please visit our website : www.norfalco.com

Training Advice Follow training instructions when handling this material.**This material safety data sheet complies with the requirements of Occupational health legislation in Canada and with the Globally harmonized system (GHS).**

Disclaimer Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation. NorFalco Sales Inc. extends no warranty and assumes no responsibility for the accuracy of the content and expressly disclaims all liability for reliance thereon. This safety data sheet provides guidelines for the safe handling and processing of this product: it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required. Individuals exposed to this product should read and understand this information and be provided pertinent training prior to working with this product.

End of Safety Data Sheet

ATTACHMENT-5
INFORMATION PROVIDED BY OTHERS



RELEASE LOG FORM

BWSC 101

Release Tracking Number

1 - 20919

A. THIS FORM IS BEING USED TO: (check one)

1. Log Date: 9/1/2019 Log Time: 08:02 ☒ AM ☐ PM
(mm/dd/yyyy) (hh:mm)
- ☒ 2. Assign a Release Tracking Number (RTN) to a Release or TOR Report.
☒ a. **Reportable Release or TOR.** ☐ b. **Release that is Less Than the Reporting Thresholds.**
- ☐ 3. Amend a Previously Recorded Release or TOR Report (RTN Assigned) .
☐ a. The Release is a **Reportable Release or TOR.** ☐ b. The Release is a **Release that is Less Than the Reporting Thresholds.**
- ☐ c. The Release or TOR is **Retracted.** ☐ d. The Release or TOR is **not a Release under M.G.L. c. 21E.**
(BWSC103 must be submitted, as well)

B. REPORTING PERSON:

1. Name of Organization: BARNHARDT MANUFACTURING
2. First Name: LARRY 3. Last Name: COUCH
4. Telephone: 4136243471 5. Ext.: 3701
6. Relationship of Person to Release: ☒ PRP ☐ Other c. Type, if known (e.g. Current Owner): Generator

C. RELEASE OR THREAT OF RELEASE (TOR) /SITE LOCATION:

1. Location Aid/Site Name: FILTER BUILDING
2. Street Address: 247 MAIN ROAD 3. 2nd Address Line: _____
4. City/Town: COLRAIN, COLRAIN 5. Zip Code (if known): _____
6. Type of Location: (check all that apply) ☐ a. School ☐ b. Water Body ☐ c. Right of Way ☐ d. Utility Easement
☐ e. Roadway ☐ f. Municipal ☐ g. State ☐ h. Residential ☐ i. Open Space ☐ j. Private Property
☒ k. Industrial ☐ l. Commercial ☐ m. Federal ☐ n. Other Describe: _____

D. RELEASE OR TOR INFORMATION:

1. Date and Time of **Notification:** 9/1/2019 Time: 08:02 ☒ AM ☐ PM
(mm/dd/yyyy) (hh:mm)
2. Date and Time Reporting Person obtained **Knowledge of Release or TOR:** 9/1/2019 Time: 07:15 ☒ AM ☐ PM
(mm/dd/yyyy) (hh:mm)
3. Date and Time **Release or TOR occurred**, if known: _____ Time: _____ ☐ AM ☐ PM
(mm/dd/yyyy) (hh:mm)
4. **Sources of the Release or TOR:** (check all that apply) ☐ a. Transformer ☐ b. Fuel Tank ☐ c. Pipe
☐ d. OHM Delivery ☒ e. AST ☐ f. Drums ☐ g. Tanker Truck ☐ h. Hose ☐ i. Line
☐ j. UST Describe ☐ k. Vehicle ☐ l. Boat/Vessel
☐ m. Unknown ☐ n. Other: _____
5. **Federal LUST Eligible:** ☐ Yes ☒ No ☐ Unknown



RELEASE LOG FORM

BWSC 101

Release Tracking Number

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Check all Notification Thresholds that apply to the Release or TOR:

6. 2 Hour Reporting Conditions:

- ☒ a. Sudden Release
☐ b. Threat of Sudden Release
☐ c. Oil Sheen on Surface Water
☒ d. Poses Imminent Hazard
☐ e. Could Pose Imminent Hazard
☐ f. Release Detected in Private Well
☐ g. Release to Storm Drain
☐ h. Sanitary Sewer Release (Imminent Hazard Only)

7. 72 Hour Reporting Conditions:

- ☐ a. Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/2 Inch
☐ b. Underground Storage Tank (UST) Release
☐ c. Threat of UST Release
☐ d. Release to Groundwater near Water Supply
☐ e. Release to Groundwater near School or Residence
☐ f. Substantial Release Migration

8. 120 Day Reporting Conditions:

- ☐ a. Release of Hazardous Material(s) to Soil or Groundwater Exceeding Reportable Concentration(s)
☐ b. Release of Oil to Soil Exceeding Reportable Concentration(s) and Affecting More than 2 Cubic Yards
☐ c. Release of Oil to Groundwater Exceeding Reportable Concentration(s)
☐ d. Subsurface Non-Aqueous Phase Liquid(NAPL) Equal to or Greater than 1/8 Inch and Less than 1/2 Inch

9. Type of Release or TOR: (check all that apply)

- ☐ a. Dumping ☐ b. Fire ☐ c. AST Removal ☐ d. Overfill
☐ e. rupture ☐ f. Vehicle Accident ☒ g. Leak ☐ h. Spill ☐ i. Test Failure ☐ j. TOR Only
☐ k. UST Removal Describe _____
☐ l. Unknown ☐ m. Other: _____

10. Media Impacted and Receptors Affected: (check all that apply)

- ☐ a. Paved Surface ☐ b. Basement ☐ c. School
☐ d. Public Water Supply ☒ e. Surface Water ☐ f. Zone 2 ☐ g. Private Well ☐ h. Residence ☒ i. Soil
☐ j. Ground Water ☐ k. Sediments ☐ l. Wetland ☐ m. Storm Drain ☐ n. Indoor Air ☐ o. Air
☐ p. Soil Gas ☐ q. Sub-Slab Soil Gas ☐ r. Critical Exposure Pathway ☐ s. NAPL ☐ t. Unknown
☐ u. Others Specify: _____

11. List below the Oils (O) or Hazardous Materials (HM) that exceed their Reportable Concentration (RC) or Reportable Quantity (RQ) by the greatest amount.

☐ Check here if an amount or concentration is unknown or less than detectable.

O or HM Released	CAS Number, if known	O or HM	Amount or Concentration	Units	RCs Exceeded, if Applicable
SULFURIC ACID		HM	10	GAL	N/A
					N/A
					N/A



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12. Description of Release or Threat of Release (if additional space is needed, attach additional information in H17)

NOTIFICATION RECEIVED REGARDING A RELEASE OF SULFURIC ACID FROM A 4400 GALLON ABOVE GROUND STORAGE TANK. AS REPORTED, AN ABOVE GROUND STORAGE TANK CONTAINING 93% SULFURIC ACID FAILED, AND APPROXIMATELY 6 GALLONS WAS SPRAYED OVER THE CONTAINMENT AND ONTO A DRAINAGE DITCH. THE IMPACTED SOIL WAS DUG UP, CONTAINERIZED AND THE AREA WAS COVERED WITH SODIUM BICARBONATE. NO SURFACE WATERS OR STORM DRAINS WERE IMPACTED. BARNHARDT WILL RETAIN AN LSP AND ENVIRONMENTAL CONTRACTOR TO FOLLOW UP ON THE ASSESSMENT AND DISPOSAL OF MATERIAL.

E. INVOLVED PARTIES SUMMARY :

1. PRP Status (check one): ☐ a. PRP Unknown ☐ b. PRP unwilling, unable or has not committed to Perform Response Actions
☒ c. PRP Performing Response Actions ☐ d. Release is Adequated Regulated by the US Coast Guard

2. If PRP is not Performing Response Actions, who is?

- ☐ a. MassDEP State Contractor ☐ b. Other Person

3. Contractor: a. Name of Organization: _____ b. Telephone: _____
c. Contact First Name: _____ d. Last Name: _____
4. LSP: a. Name: _____ b. LSP #: _____
c. Telephone: _____



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Release Tracking Number

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F. PRP OR PERSON PERFORMING RESPONSE ACTIONS:

1. Name of Organization: BARNHARDT MANUFACTURING

2. Contact First Name: LARRY 3. Last Name: COUCH

4. Street: 247 MAIN ROAD 5. Title: _____

6. City/Town: COLRAIN 7. State: MA 8. ZIP Code: 013400000

9. Telephone: 4136243471 10. Ext: 3701 11. Email: _____

12. Relationship of Person to Release: ☒ PRP ☐ Other c. Type (e.g. Current Owner): Generator

☐ 13. Check here if this PRP received a field NOR ☐ 14. Check here if an RNF was requested from this PRP

☐ 15. Check here if Provisions of 21E were explained to this PRP.

G. RECORD ORAL RESPONSE ACTIVITIES:

- | | |
|---|--|
| <input type="checkbox"/> 1. IRA Completed Pre-notification | <input type="checkbox"/> 5. IRA Oral Modified Plan Approved |
| <input type="checkbox"/> 2. No IRA Approved at Notification | <input type="checkbox"/> 6. IRA Oral Plan Denied and/or Request for Written Plan |
| <input type="checkbox"/> 3. IRA Assessment Only. | <input type="checkbox"/> 7. Notice of Intent to Conduct a URAM |
| <input checked="" type="checkbox"/> 4. IRA Oral Plan Approved | <input type="checkbox"/> 8. IRA-D Oral Plan Approved |
| | <input type="checkbox"/> 9. IRA-D Oversight Work Started |

10. Date of Action: 9/1/2019

11. Soil Previously Excavated: ☒ a. Excavated prior to notification. ☐ b. Excavated as part of an UST closure.

c. Quantity of contaminated soil previously excavated and destination, if applicable:
4, 55-GALLON DRUMS

12. Specify any Regional Specific Code (Regional Use): _____

H. ORAL RESPONSE ACTION PLAN: (check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> 1. Assessment and/or Monitoring Only | <input type="checkbox"/> 2. Temporary Covers or Caps |
| <input type="checkbox"/> 3. Deployment of Absorbent or Containment Materials | <input type="checkbox"/> 4. Temporary Water Supplies |
| <input type="checkbox"/> 5. Structure Venting System | <input type="checkbox"/> 6. Temporary Evacuation or Relocation of Residents |
| <input checked="" type="checkbox"/> 7. Product or NAPL Recovery | <input type="checkbox"/> 8. Fencing and Sign Posting |
| <input type="checkbox"/> 9. Groundwater Treatment Systems | <input type="checkbox"/> 10. Soil Vapor Extraction |
| <input type="checkbox"/> 11. Bioremediation | <input type="checkbox"/> 12. Air Sparging |
| <input checked="" type="checkbox"/> 13. Excavation of Contaminated Soils | |
| <input checked="" type="checkbox"/> a. Re-use, Recycling or Treatment | <input type="checkbox"/> i. On Site <input checked="" type="checkbox"/> ii. Off Site Authorized volume in cubic yards: <u>25</u> |
| <input type="checkbox"/> b. Store | <input type="checkbox"/> i. On Site <input type="checkbox"/> ii. Off Site Authorized volume in cubic yards: _____ |
| <input type="checkbox"/> c. Landfill | <input type="checkbox"/> i. Cover <input type="checkbox"/> ii. Disposal Authorized volume in cubic yards: _____ |



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

RELEASE LOG FORM

BWSC 101

Release Tracking Number

1 - 20919

☐ 14. Removal of Drums, Tanks or Containers:

Describe Quantity and Amount: _____

☐ 15. Removal of Other Contaminated Media:

Specify Type and Volume: _____

☒ 16 Other Response Actions and Additional Comments (describe):

USE OF SODIUM BICARBONATE AS NECESSARY TO NEUTRALIZE MATERIAL

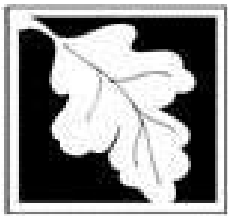
☐ 17. Check here if Additional Information is Provided in an Attachment

I. DEP STAFF AND FORM PREPARER:

1. DEP Staff: a. Name: REES JOEL ☐ b. Check here, if Unassigned (or staff name not applicable).

2. Preparer : a. Name: REES JOEL

b. Signature: DAVID A. SLOWICK FOR JGR c. Date: 9/3/2019



RELEASE AMENDMENT FORM

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: FILTER BUILDING

2. Street Address: 247 MAIN ROAD

3. City/Town: COLRAIN 4. ZIP Code: _____

B. THIS FORM IS BEING USED TO: (check all that apply)

1. Date of Response(s): 9/1/2019 Start Time : 02:20 ☐ AM ☒ PM
(mm/dd/yyyy) (hh:mm)

2. Record Field Visits:

- ☐ a. Initial Compliance Field Response – Announced ☐ d. Compliance Field Response – Unannounced
- ☒ b. Initial Compliance Field Response – Unannounced ☐ e. Follow-up or Other Field Response
- ☐ c. Compliance Field Response – Announced ☐ f. Field Response - Direct Oversight

3. Record an Activity:

- ☐ a. Follow-up Office Response ☐ b. Meeting with PRP or PRP Representative

4. Record IRA Activities (also complete Section D, if applicable):

- ☐ a. IRA Assessment Only ☐ e. IRA Written Plan Approved
- ☐ b. IRA Oral Plan Approved ☐ f. IRA Written Plan Denied
- ☐ c. IRA Oral Plan Denied and/or Request for Written Plan ☐ g. Imminent Hazard Termination Approved
- ☐ d. IRA Oral Modified Plan Approved

5. Record IRA Department (IRA-D) Oversight Activities:

- ☐ a. IRA-D Work Started ☐ d. IRA-D Modification Plan Recorded
- ☐ b. IRA-D Assessment Only ☐ e. IRA-D Work Completed
- ☐ c. IRA-D Plan Recorded

6. Record URAM Activities:

- ☐ a. Notice of Intent to Conduct a URAM ☐ c. URAM Notification of a Previously Existing RTN
- ☐ b. URAM Work Started

- ☐ 7. Correct or Add **Data to WSC Database** otherwise not specified on this form. (Record in Section F)
- ☐ 8. Identify or Update a **PRP or Other Person Associated with Release** (Fill out Section C)
- ☐ 9. **Record Other Staff Activities** not specified above. (Record in Section F)



RELEASE AMENDMENT FORM

C. PRP OR OTHER PERSON ASSOCIATED WITH RELEASE:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☒ c. new person associated with release

2. Name of Organization: _____

3. Contact First Name: LARRY 4. Last Name: COUCH

5. Street: _____ 6. Title: _____

7. City/Town: _____ 8. State: _____ 9. ZIP Code: _____

10. Telephone: 4136243471 11. Ext: _____ 12. EMail: _____

13. Relationship of Person to Release: ☒ PRP ☐ OTHER c. Type(e.g. Current Owner): Generator

☐ 14. No Person associated with activity specified in Section B.

D. ENTER ORAL RESPONSE ACTION PLAN (if applicable): (check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> 1. Assessment and/or Monitoring only | <input type="checkbox"/> 6. Temporary Evacuation or Relocation of Residents |
| <input type="checkbox"/> 2. Temporary Covers or Caps | <input type="checkbox"/> 7. Product or NAPL Recovery |
| <input type="checkbox"/> 3. Deployment of Absorbent or Containment Materials | <input type="checkbox"/> 8. Fencing and Sign Posting |
| <input type="checkbox"/> 4. Temporary Water Supplies | <input type="checkbox"/> 9. Groundwater Treatment Systems |
| <input type="checkbox"/> 5. Structure Venting Systems | <input type="checkbox"/> 10. Soil Vapor Extraction |

☐ 11. Check here if modifying amount of authorized excavated soils:

Amount not to exceed _____ ☐ cubic yards ☐ tons

☐ 12. Other Response Actions

Describe: _____

E. MassDEP STAFF AND FORM PREPARER:

1. MassDEP Staff: REES JOEL ☐ b. Check here, if Unassigned (or staff name not applicable)

2. Preparer Signature: DAVID A. SLOWICK FOR JGR 3. Date : 9/5/2019
(mm/dd/yyyy)



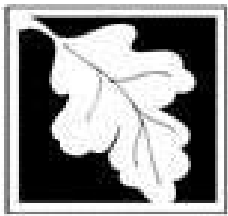
RELEASE AMENDMENT FORM

F. DESCRIPTION OF ACTIVITIES RECORDED BY THIS FORM:

NOTIFICATION RECEIVED FROM MEMA REGARDING A CALL BACK REQUESTED FROM REBECCA QUINONES WITH THE MASS DIVISION OF FISH AND WILDLIFE. MS. QUINONES STATED THAT HER AGENCY RECEIVED A NOTIFICATION OF A MULTI SPECIES FISH KILL ON THE NORTH RIVER IN COLRAIN AND SHELBURNE. THE PERSON WHO CONTACTED HER AGENCY STATED THAT THE DEAD FISH WERE OBSERVED UP TO THE AREA OF BARNHARDT MANUFACTURING. MASSDEP REPRESENTATIVE JOEL REES RESPONDED TO COLRAIN TO ASSESS THE NORTH RIVER AND BARNHARDT MANUFACTURING. WHILE ENROUTE TO THE AREA, THE COLRAIN FIRE DEPARTMENT WAS CONTACTED TO DETERMINE IF THEY HAD BEEN NOTIFIED OF THE INITIAL RELEASE EARLIER IN THE MORNING AND IF THEY WERE CONTACTED REGARDING THE FISH KILL. COLRAIN FD STATED THAT REPRESENTATIVES WOULD MEET MASSDEP AT THE BARNHARDT SITE. MASSDEP INITIALLY STOPPED AT THE CONFLUENCE OF THE NORTH AND DEERFIELD RIVERS TO ASSESS ANY IMPACTS. DOZENS OF SMALL FISH WERE OBSERVED DEAD WITHIN THE NORTH RIVER. A PH READNG OF THE WATER WITH PH INDICATOR STRIPS EXHIBITED A PH OF AROUND 7 TO 8. PEOPLE WHO WERE SWIMMING IN THE DEERFIELD RIVER NEAR THE CONFLUENCE WERE ADVISED OF A POTENTIAL SITUATION WITH THE WATER AND WERE ADVISED TO NOT SWIM IN THE AREA UNTIL FURTHER ASSESSMENT COULD BE DONE. MASSDEP THEN MET UP WITH FISH AND WILDLIFE REPRESENTATIVE LEANDA FONTAINE AT CHARLEMONT AND MAIN ROADS. MS. FONTAINE STATED THAT SHE HAD OBSERVED HUNDREDS OF DEAD FISH WITHIN THE RIVER. ABOUT 5-7 DIFFERENT SPECIES WERE IDENTIFIED. MS FONTAINE STATED THAT SHE WAS GOING TO CONTINUE HER ASSESSMENT AND WOULD NOTIFY MASSDEP OF ANY SIGNIFICANT FINDINGS.

MASSDEP MET WITH MEMBERS OF THE COLRAIN FD AT THE BARNHARDT FACILITY. AN EMPLOYEE ESCORTED MASSDEP AND THE FD TO THE SULFURIC ACID TANK AREA. THE SULFURIC ACID TANK AND ASSOCIATED CONTAINMENT WAS COVERED WITH PLASTIC. A DRAINAGE SWALE GOING FROM THE CONTAINMENT AREA TO A TAIL RACE WAS ALSO COVERED WITH PLASTIC. EMPLOYEES WERE PUMPING SULFURIC ACID OUT OF THE AST TO A TANK WITHIN THE MAIN BUILDING. THE TANK WAS LEAKING SULFURIC ACID INTO CONTAINMENT. THE EMPLOYEES WERE TOLD ABOUT THE FISH KILL DISCOVERED LEADING UP TO THE FACILITY. THE EMPLOYEES HAD A SURPRISED REACTION AS THEY DID NOT BELIEVE ANY ACID WENT INTO THE SURFACE WATER AS THERE WERE NO VISIBLE IMPACTS TO THE SOIL OR ROCKS ADJACENT TO THE STREAM AT THE BOTTOM OF THE DRAINAGE SWALE. THE EMPLOYEES STATED TO MASSDEP THAT THE IMPACTED SOIL WITHIN THE SWALE WAS TREATED WITH SODIUM BICARBONATE AND PLACED INTO DRUMS. ADDITIONAL BICARBONATE WAS APPLIED TO THE EXCAVATION LIMITS AND THEN COVERED WITH PLASTIC. THE FIRE DEPARTMENT, ALONG WITH COLRAIN AND SHELBURNE POLICE THEN WENT DOWN THE NORTH RIVER TELLING ANYONE WHO WAS IN OR NEAR THE WATER TO STAY OUT OF THE WATER UNTIL IT COULD BE ASSESSED.

☒ Check here if additional information is provided in an attachment.



RELEASE AMENDMENT FORM

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: FILTER BUILDING

2. Street Address: 247 MAIN ROAD

3. City/Town: COLRAIN 4. ZIP Code: _____

B. THIS FORM IS BEING USED TO: (check all that apply)

1. Date of Response(s): 9/2/2019 Start Time : 11:00 ☒ AM ☐ PM
(mm/dd/yyyy) (hh:mm)

2. Record Field Visits:

- ☐ a. Initial Compliance Field Response – Announced ☐ d. Compliance Field Response – Unannounced
- ☐ b. Initial Compliance Field Response – Unannounced ☐ e. Follow-up or Other Field Response
- ☒ c. Compliance Field Response – Announced ☐ f. Field Response - Direct Oversight

3. Record an Activity:

- ☐ a. Follow-up Office Response ☐ b. Meeting with PRP or PRP Representative

4. Record IRA Activities (also complete Section D, if applicable):

- ☐ a. IRA Assessment Only ☐ e. IRA Written Plan Approved
- ☐ b. IRA Oral Plan Approved ☐ f. IRA Written Plan Denied
- ☐ c. IRA Oral Plan Denied and/or Request for Written Plan ☐ g. Imminent Hazard Termination Approved
- ☐ d. IRA Oral Modified Plan Approved

5. Record IRA Department (IRA-D) Oversight Activities:

- ☐ a. IRA-D Work Started ☐ d. IRA-D Modification Plan Recorded
- ☐ b. IRA-D Assessment Only ☐ e. IRA-D Work Completed
- ☐ c. IRA-D Plan Recorded

6. Record URAM Activities:

- ☐ a. Notice of Intent to Conduct a URAM ☐ c. URAM Notification of a Previously Existing RTN
- ☐ b. URAM Work Started

- ☐ 7. Correct or Add **Data to WSC Database** otherwise not specified on this form. (Record in Section F)
- ☐ 8. Identify or Update a **PRP or Other Person Associated with Release** (Fill out Section C)
- ☐ 9. **Record Other Staff Activities** not specified above. (Record in Section F)



RELEASE AMENDMENT FORM

C. PRP OR OTHER PERSON ASSOCIATED WITH RELEASE:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. new person associated with release

2. Name of Organization: BARNHARDT MANUFACTURING COMPANY

3. Contact First Name: _____ 4. Last Name: _____

5. Street: _____ 6. Title: _____

7. City/Town: _____ 8. State: _____ 9. ZIP Code: _____

10. Telephone: 0000000000 11. Ext: _____ 12. EMail: _____

13. Relationship of Person to Release: ☒ PRP ☐ OTHER c. Type(e.g. Current Owner): Non-specified PRP

☐ 14. No Person associated with activity specified in Section B.

D. ENTER ORAL RESPONSE ACTION PLAN (if applicable): (check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> 1. Assessment and/or Monitoring only | <input type="checkbox"/> 6. Temporary Evacuation or Relocation of Residents |
| <input type="checkbox"/> 2. Temporary Covers or Caps | <input type="checkbox"/> 7. Product or NAPL Recovery |
| <input type="checkbox"/> 3. Deployment of Absorbent or Containment Materials | <input type="checkbox"/> 8. Fencing and Sign Posting |
| <input type="checkbox"/> 4. Temporary Water Supplies | <input type="checkbox"/> 9. Groundwater Treatment Systems |
| <input type="checkbox"/> 5. Structure Venting Systems | <input type="checkbox"/> 10. Soil Vapor Extraction |

☐ 11. Check here if modifying amount of authorized excavated soils:

Amount not to exceed _____ ☐ cubic yards ☐ tons

☐ 12. Other Response Actions

Describe: _____

E. MassDEP STAFF AND FORM PREPARER:

1. MassDEP Staff: REES JOEL ☐ b. Check here, if Unassigned (or staff name not applicable)

2. Preparer Signature: DAVID A. SLOWICK FOR JGR 3. Date : 9/6/2019
(mm/dd/yyyy)

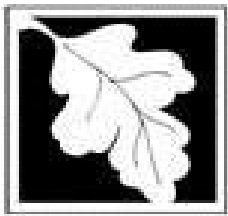


RELEASE AMENDMENT FORM

F. DESCRIPTION OF ACTIVITIES RECORDED BY THIS FORM:

MASSDEP REPRESENTATIVE JOEL REES PERFORMED A SITE INSPECTION TO ASSESS THE PROGRESS OF TRANSFERRING SULFURIC ACID FROM THE LEAKING TANK TO OTHER TANKS, AND OBSERVE IF ANY ADDITIONAL IMPACTS TO THE NORTH RIVER HAD OCCURRED. BARNHARDT EMPLOYEES HAD CONCLUDED TRANSFERRING PRODUCT FROM THE LEAKING TANK EARLIER THIS MORNING. A SLIGHT TRICKLE OF PRODUCT WAS STILL EMANATING FROM THE TANK INTO CONTAINMENT AS THE PUMP INTAKE USED TO TRANSFER THE ACID COULD NOT REMOVE ALL OF THE PRODUCT. THE ACID THAT WAS RELEASED FROM THE TANK INTO CONTAINMENT WAS TRANSFERRED VIA A PUMP TO TANKS LOCATED INSIDE THE BUILDING ADJACENT TO THE SULFURIC ACID TANK. SODIUM BICARBONATE WAS DEPLOYED TO THE IMPACTED WALLS AND FLOOR OF THE CONTAINMENT AREA TO NEUTRALIZE ANY REMAINING MATERIAL. MASSDEP REQUESTED THAT ADDITIONAL PLASTIC TARPS BE PLACED OVER THE DRAINAGE SWALE, AND THE PLASTIC TARP THAT WAS COVERING THE CONTAINMENT AREA AND TANK BE KEPT AS CLOSE THE BUILDING AS POSSIBLE. RAIN IF FORECASTED FOR THE NIGHT. MASSDEP ALSO INSPECTED THE TAIL RACE AND NORTH RIVER. NO ADDITIONAL IMPACTS WERE OBSERVED.

☐ Check here if additional information is provided in an attachment.



RELEASE AMENDMENT FORM

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: FILTER BUILDING

2. Street Address: 247 MAIN ROAD

3. City/Town: COLRAIN 4. ZIP Code: _____

B. THIS FORM IS BEING USED TO: (check all that apply)

1. Date of Response(s): 9/3/2019 Start Time : 09:30 ☒ AM ☐ PM
(mm/dd/yyyy) (hh:mm)

2. Record Field Visits:

- ☐ a. Initial Compliance Field Response – Announced ☒ d. Compliance Field Response – Unannounced
- ☐ b. Initial Compliance Field Response – Unannounced ☐ e. Follow-up or Other Field Response
- ☐ c. Compliance Field Response – Announced ☐ f. Field Response - Direct Oversight

3. Record an Activity:

- ☐ a. Follow-up Office Response ☐ b. Meeting with PRP or PRP Representative

4. Record IRA Activities (also complete Section D, if applicable):

- ☐ a. IRA Assessment Only ☐ e. IRA Written Plan Approved
- ☐ b. IRA Oral Plan Approved ☐ f. IRA Written Plan Denied
- ☐ c. IRA Oral Plan Denied and/or Request for Written Plan ☐ g. Imminent Hazard Termination Approved
- ☐ d. IRA Oral Modified Plan Approved

5. Record IRA Department (IRA-D) Oversight Activities:

- ☐ a. IRA-D Work Started ☐ d. IRA-D Modification Plan Recorded
- ☐ b. IRA-D Assessment Only ☐ e. IRA-D Work Completed
- ☐ c. IRA-D Plan Recorded

6. Record URAM Activities:

- ☐ a. Notice of Intent to Conduct a URAM ☐ c. URAM Notification of a Previously Existing RTN
- ☐ b. URAM Work Started

- ☐ 7. Correct or Add **Data to WSC Database** otherwise not specified on this form. (Record in Section F)
- ☐ 8. Identify or Update a **PRP or Other Person Associated with Release** (Fill out Section C)
- ☐ 9. **Record Other Staff Activities** not specified above. (Record in Section F)



RELEASE AMENDMENT FORM

C. PRP OR OTHER PERSON ASSOCIATED WITH RELEASE:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. new person associated with release

2. Name of Organization: BARNHARDT MANUFACTURING COMPANY

3. Contact First Name: _____ 4. Last Name: _____

5. Street: _____ 6. Title: _____

7. City/Town: _____ 8. State: _____ 9. ZIP Code: _____

10. Telephone: 0000000000 11. Ext: _____ 12. EMail: _____

13. Relationship of Person to Release: ☒ PRP ☐ OTHER c. Type(e.g. Current Owner): Non-specified PRP

☐ 14. No Person associated with activity specified in Section B.

D. ENTER ORAL RESPONSE ACTION PLAN (if applicable): (check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> 1. Assessment and/or Monitoring only | <input type="checkbox"/> 6. Temporary Evacuation or Relocation of Residents |
| <input type="checkbox"/> 2. Temporary Covers or Caps | <input type="checkbox"/> 7. Product or NAPL Recovery |
| <input type="checkbox"/> 3. Deployment of Absorbent or Containment Materials | <input type="checkbox"/> 8. Fencing and Sign Posting |
| <input type="checkbox"/> 4. Temporary Water Supplies | <input type="checkbox"/> 9. Groundwater Treatment Systems |
| <input type="checkbox"/> 5. Structure Venting Systems | <input type="checkbox"/> 10. Soil Vapor Extraction |

☐ 11. Check here if modifying amount of authorized excavated soils:

Amount not to exceed _____ ☐ cubic yards ☐ tons

☐ 12. Other Response Actions

Describe: _____

E. MassDEP STAFF AND FORM PREPARER:

1. MassDEP Staff: REES JOEL ☐ b. Check here, if Unassigned (or staff name not applicable)

2. Preparer Signature: DAVID A. SLOWICK FOR JGR 3. Date : 9/6/2019
(mm/dd/yyyy)



RELEASE AMENDMENT FORM

F. DESCRIPTION OF ACTIVITIES RECORDED BY THIS FORM:

MASSDEP REPRESENTATIVE JOEL REES PERFORMED A SITE INSPECTION TO ASSESS THE REMOVAL OF SULFURIC ACID FROM THE CONTAINMENT AREA AND EVALUATE THE SPILLWAY AND NORTH RIVER FOR ANY FURTHER IMPACTS. BARNHARDT EMPLOYEES REMOVED ALL OF THE SULFURIC ACID IN THE CONTAINMENT AND PUMPED IT INTO CONTAINERS WITHIN THE ADJACENT BUILDING. SODIUM BICARBONATE WAS THEN APPLIED TO THE CONTAINMENT AREA AND WILL BE REMOVED AND RINSED ON 9/4. NO FURTHER IMPACTS TO THE SPILLWAY OR NORTH RIVER WERE OBSERVED. A RAIN EVENT OCCURRED ON THE NIGHT OF 9/3 AND INCREASED THE FLOW DRAMATICALLY IN THE NORTH RIVER.

☐ Check here if additional information is provided in an attachment.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Emergency Certification Form
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Important:
When filling out
forms on the
computer, use
only the tab
key to move
your cursor -
do not use the
return key.

A. Emergency Information

- Issuance From: Colrain Conservation Commission
Issuing Authority
1. Site Location: Barnhardt Manufacturing Plant 247 Main Road Colrain, MA
2. Reason for Emergency:
Spill of sulfuric acid in the North River
3. Applicant to perform work: Barnhardt Manufacturing Co.
4. Public agency to perform work or public agency ordering the work to be performed:
Mass. DEP (conducted the site visit)
5. Date of Site Visit: 9/11/2019 Start Date: 9/12/2019 End Date*: 10/12/2019
* no later than 30 days from start date or 60 days in the case of an Immediate Response Action approved by DEP to address an oil/hazardous material release.
6. Work to be allowed*:
Remaining work to stabilize and revegetate disturbed areas within the buffer zone of the North River.
Removal of contaminated materials as necessary.

* May not include work beyond that necessary to abate the emergency.

B. Signatures

Certified to be an Emergency by this Issuing Authority.

Signatures:

Chairman (or designee) William Dehaene Date 9-12-2019
Cherise Wheeler

A copy of this form must be provided to the appropriate DEP Regional Office.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Emergency Certification Form
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. General Conditions

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Emergency Certification or subject to enforcement action.
2. This Emergency Certification does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of property rights.
3. This Emergency Certification does not relieve the applicant or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. Any work conducted beyond that described above, and any work conducted beyond that necessary to abate the emergency, shall require the filing of a Notice of Intent.
5. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Emergency Certification at reasonable hours to evaluate compliance with this Certification, and may require the submittal of any data deemed necessary by the Conservation Commission or the Department for that evaluation.
6. This Emergency Certification shall apply to any contractor or any other person performing work authorized under this Certification.
7. No work may be authorized beyond 30 days from the date of this certification without written approval of the Department.

D. Special Conditions

E. Appeals

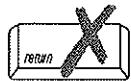
The Department may, on its own motion or at the request of any person, review: an emergency certification issued by a conservation commission and any work permitted thereunder; a denial by a conservation commission of a request for emergency certification; or the failure by a conservation commission to act within 24 hours of a request for emergency certification. Such review shall not operate to stay the work permitted by the emergency certification unless the Department specifically so orders. The Department's review shall be conducted within seven days of: issuance by a conservation commission of the emergency certification; denial by a conservation commission of the emergency certification; or failure by a conservation commission to act within 24 hours of a request for emergency certification. If certification was improperly granted, or the work allowed thereunder is excessive or not required to protect the health and safety of citizens of the Commonwealth, the Department may revoke the emergency certification, condition the work permitted thereunder, or take such other action as it deems appropriate.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Emergency Certification Form
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. Emergency Information

Important:
When filling out
forms on the
computer, use
only the tab
key to move
your cursor -
do not use the
return key.



- Issuance From: Colrain Conservation Commission
Issuing Authority
1. Site Location: Barnhardt Manufacturing Plant-247 Main Rd. Colrain, MA 01340
2. Reason for Emergency:
Spill of sulphuric acid in the North River
3. Applicant to perform work: Barnhardt Manufacturing Co.
4. Public agency to perform work or public agency ordering the work to be performed:
Mass DEP (conducted the site visit)
5. Date of Site Visit: 9/11/2019 Start Date: 9/12/2019 End Date*: 11/11/2019
* no later than 30 days from start date or 60 days in the case of an Immediate Response Action approved by DEP to address an oil/hazardous material release.
6. Work to be allowed*:
Remaining work to stabilize and revegetate disturbed areas within the buffer zone of the North River.
Removal of contaminated materials as necessary.
Work described in email from Greg Morand dated 10/21 @ 3:00pm.
- * May not include work beyond that necessary to abate the emergency.

B. Signatures

Certified to be an Emergency by this Issuing Authority.

Signatures:

Charles Wheeler
Chairman (or designee)
William D. ...

October 21, 2019
Date

A copy of this form must be provided to the appropriate DEP Regional Office.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Emergency Certification Form
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. General Conditions

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Emergency Certification or subject to enforcement action.
2. This Emergency Certification does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of property rights.
3. This Emergency Certification does not relieve the applicant or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. Any work conducted beyond that described above, and any work conducted beyond that necessary to abate the emergency, shall require the filing of a Notice of Intent.
5. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Emergency Certification at reasonable hours to evaluate compliance with this Certification, and may require the submittal of any data deemed necessary by the Conservation Commission or the Department for that evaluation.
6. This Emergency Certification shall apply to any contractor or any other person performing work authorized under this Certification.
7. No work may be authorized beyond 30 days from the date of this certification without written approval of the Department.

D. Special Conditions

E. Appeals

The Department may, on its own motion or at the request of any person, review: an emergency certification issued by a conservation commission and any work permitted thereunder; a denial by a conservation commission of a request for emergency certification; or the failure by a conservation commission to act within 24 hours of a request for emergency certification. Such review shall not operate to stay the work permitted by the emergency certification unless the Department specifically so orders. The Department's review shall be conducted within seven days of: issuance by a conservation commission of the emergency certification; denial by a conservation commission of the emergency certification; or failure by a conservation commission to act within 24 hours of a request for emergency certification. If certification was improperly granted, or the work allowed thereunder is excessive or not required to protect the health and safety of citizens of the Commonwealth, the Department may revoke the emergency certification, condition the work permitted thereunder, or take such other action as it deems appropriate.



Town of Colrain Assessors

From: Gregory Morand <gmorand@omnieg.com>
Sent: Monday, October 21, 2019 3:00 PM
To: Bill Dornbusch; Spike Wheeler; Town of Colrain Assessors
Cc: Stephen Van Wormer; Mark Thibodeau; Keith Gammell (keith.gammell@barnhardt.net); Larry Couch; Tom Robinson
Subject: RE: 3958: Barnhardt
Attachments: 2019 10 21 Figure 3 - Restoration Plan.pdf

Hello Bill –

Per our telecom, please see the attached revised restoration plan for Barnhardt.

This plan indicates:

1. During the demo work, we will temporarily ensue that the slope soils behind (to the south) of the concrete containment structure remain stable through placement of poly sheeting and E&S controls around the slope once the concrete containment wall is down
 - a. This general area is shown in a Grey Cloud markout on the plan
2. These controls will be in addition to the E&S controls installed at the Site today, as shown in **Magenta**
3. Filter Fabric and trap rock will be installed in the approximate areas shown in **Grey**
4. Loam, seed and erosion control blankets will be installed in the approximate areas shown in **Green**
5. Once removed a concrete masonry unit (CMU) block wall will be installed in an “L” shape, as shown on the plan in **Cyan**
 - a. This CMU wall will tie into the existing landscape retention wall to the west and to the Filter Building to the north
 - b. The CMU wall will further include use of the existing 6” steel pipe/gate valve at corner of Filter Building
6. The remaining footprint of the concrete containment structure will be paved to tie into existing paved surface of the facility, as shown in **Pink**

Please let me know if you have any other questions or comments to facilitate the extension of the Colrain ConsComm 30-day Emergency Certification to the 60 days allowed under the MCP as an IRA.

Can you please provide a pdf of the new Emergency Cert extension to myself and the BMC personnel cc'd herein?

We will forward this updated plan to NHESP as well.

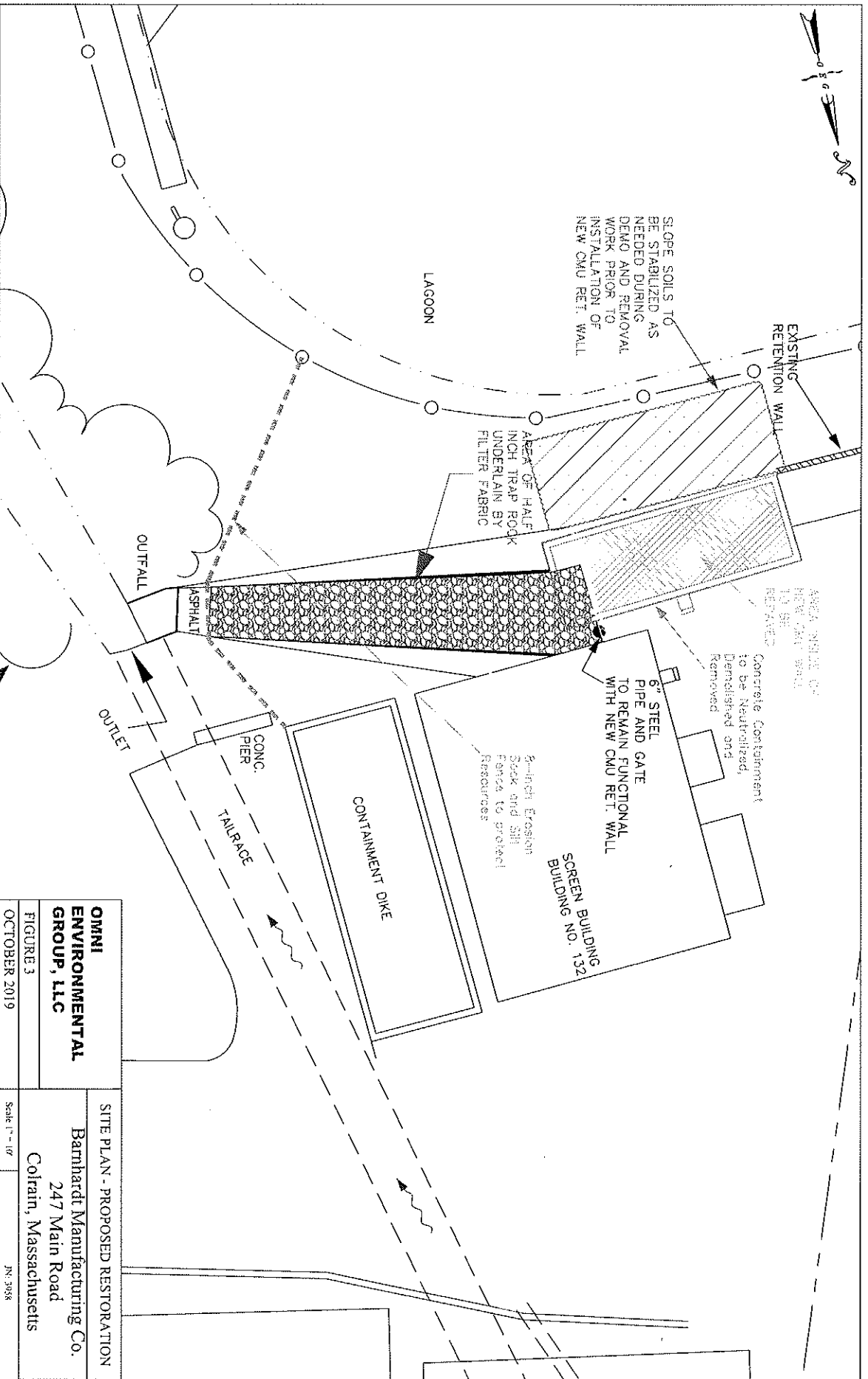
Thank you for all your assistance.

Please don't hesitate to contact me if you have any questions, comments or require additional information.

Regards,

Gregory R. Morand, Principal
Licensed Site Professional
Omni Environmental Group LLC

Phone: 978-256-6766, ext. 102
Cell: 978-502-1222



OMNI ENVIRONMENTAL GROUP, LLC	SITE PLAN - PROPOSED RESTORATION Barnhardt Manufacturing Co. 247 Main Road Colrain, Massachusetts
FIGURE 3	
OCTOBER 2019	

Scale 1" = 10'

JN: 3038

the Division's Fish Kill Response Team received the first of several reports of dead and dying fish in the North River. MADEP and Division personnel deployed to investigate the fish kill. They collected samples and recorded observations along the length of the North River. Division staff observed dead and dying fish, frogs and crayfish in the North River between the site of Barnhardt's facility and the confluence with the Deerfield River.

Barnhardt hired Gregory Morand (Omni Environmental Group, LLC) to act as the Licensed Site Professional (LSP) to develop the immediate response plan for MADEP. By letter on 9/4/19, MADEP approved the off-site recycling/disposal of up to 25 cubic yards of sulfuric acid-contaminated soil and neutralization of impacted surfaces and vegetation.

Scope of this Emergency Authorization: The scope of this MESA Emergency Authorization is limited to the Immediate Response Actions described below in the "Work" that did, or will, occur between 7:15 am on September 1, 2019 and the final onsite inspection by Omni Environmental Group. All Immediate Response Actions are expected to occur by no later than October 1, 2019 as described and limited herein.

Work Permitted by this Emergency Authorization ("Work"): Immediate Response Actions comprising the Work permitted under this Emergency Authorization include placing sodium bicarbonate on the surface of upland soils and within the swale and digging up acid-affected upland soils around the AST. Certain areas are also to be covered with plastic tarps. Additional work includes pumping the AST of remaining acid and sludge and placing them into appropriate storage containers for re-use or disposal. Upland areas around the AST that were excavated will, upon approval of the LSP and MADEP, be filled with clean soil and regraded to pre-existing contours. Usable acid from the AST has been pumped into storage containers and placed inside a building. All Immediate Response Actions have been completed as of the date of issuance of this Emergency Authorization, except for the final onsite inspection(s) by Omni Environmental Group to occur by no later than October 1, 2019. The final onsite inspection(s) are expected to involve pH testing and assessing if any additional acid remediation is necessary.

Should additional actions be necessary, Barnhardt or the LSP shall consult with the Division.

Work Duration: Immediate response actions to respond to the acid release between 7:15 am on September 1, 2019 and the final site inspection to be conducted by Omni Environmental Group no later than October 1, 2019.

Reporting Requirement: Within sixty (60) days of the date of issuance of this letter, Barnhardt shall submit to the Division a supplemental report that provides a summary of any actions taken pursuant to this Emergency Authorization, including any actions not specifically described above-the Work. The Division shall also receive, simultaneous with the MADEP, all reports and documents relative to the cleanup, including but not limited to the Immediate Response Action Plan.

The unpermitted release of the acid and associated impacts to *Priority Habitat* occurred in violation of the Massachusetts Endangered Species Act (MESA) (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.18). Further, this same release of acid resulted in a fish kill in violation of M.G.L. Chapter 131 Section 42 for which the responsible party may be liable in tort for twice the amount of the damage done.

The Division's Emergency Authorization for the immediate response to the acid release does not relieve the applicant from compliance with all relevant additional permitting and licensing requirements including, but not limited to, additional permitting and mitigation requirements under the MESA, Colrain Conservation Commission, MA Department of Environmental Protection, United States Army Corps of Engineers, and Environmental Protection Agency.

If you have any questions regarding this authorization, please contact Misty-Anne R. Marold, Senior Review Biologist, at (508) 389-6356, (misty-anne.marold@mass.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Mark S. Tisa". The signature is fluid and cursive, with the first name "Mark" and last name "Tisa" clearly legible.

Mark S. Tisa, Director
Massachusetts Division of Fisheries & Wildlife

cc: Colrain Conservation Commission
Mark Stinson, MA DEP Western Regional Office, Circuit Rider
Joel Rees, Emergency Response Division, MA DEP
Todd Richards, MA DFW-Fisheries
Andrew Madden, MA DFW



DIVISION OF
FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581

p: (508) 389-6300 | f: (508) 389-7890

MASS.GOV/MASSWILDLIFE

**MA ENDANGERED SPECIES ACT AUTHORIZATION FOR EMERGENCY ACTION EXTENSION
PURSUANT TO 321 CMR 10.15**

October 21, 2019

Larry Couch
Barnhardt Manufacturing Company
247 Main Road
Colrain, MA 01340

RE: Applicant: Barnhardt Manufacturing Company
Project Location: 247 Main Road, Colrain (Filter Building)
NHESP File No.: 19-38905, MESA EA Extension
MA DEP RTN 1-20919
Related Files: NHESP 12-31124 (MA DEP Water Quality Certificate X255671, issued on
10/10/2013); NHESP 11-30106, CMP 013-230.DFW

Dear Mr. Couch:

The MA Division of Fisheries and Wildlife's Natural Heritage & Endangered Species Program (the "Division") received a request by Barnhardt Manufacturing Company ("Barnhardt") to extend the duration and activities related to the MESA Emergency Authorization ("MESA EA") issued on 9/30/2019 to conduct additional emergency response actions associated with an acid release in the North River in Colrain, MA.

The Division reviewed this request pursuant to the MA Endangered Species Act (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00), and specifically, for compliance with 321 CMR 10.15 which allows a person to request permission by the Director of the Division to conduct an emergency Project or Activity necessary for the protection of the health or safety of the public. In addition, the Division reviewed the request for consistency with the MESA EA.

In response to a Site Audit with the United States Environmental Protection Agency, Barnhardt will remove the existing concrete containment structure that surrounds the sulfuric acid tank. Prior to demolition, the entire concrete structure and, as needed, surrounding uplands, will be neutralized again. Additional actions will occur between the concrete containment structure and into the swale west of the concrete pier that enters Tailrace Brook. No activities are proposed within Tailrace Brook. Gregory Morand (Omni Environmental Group, LLC) will continue to act as the Licensed Site Professional (LSP) for these additional emergency response actions.

Additional Work Permitted: The activities described herein, and detailed in emails from Gregory Morand to the Division dated 10/18/19 and 10/21/19, are approved. Should additional emergency response actions be necessary, Barnhardt or the LSP shall consult with the Division.

MASSWILDLIFE

Work Duration: By this letter, all Immediate Response Actions described in the MESA EA, and all additional emergency response actions described herein and detailed in the supporting emails referenced herein, shall be completed no later than November 11, 2019.

Reporting Requirement: Within sixty (60) days of the expiration of this extension of the MESA EA, Barnhardt shall submit to the Division a supplemental report that provides a summary of any actions taken pursuant to this Emergency Authorization, including any actions not specifically described above. Barnhardt shall also submit to the Division, simultaneous with the MADEP, all reports and documents relative to the cleanup, including but not limited to the Immediate Response Action Plan.

The Division's MESA EA for immediate emergency response actions associated with the acid release does not relieve the applicant from compliance with all additional, relevant permitting and licensing requirements, including but not limited to, permitting by the Town of Colrain, Town of Colrain Conservation Commission, MA Department of Environmental Protection, United States Army Corps of Engineers, and United States Environmental Protection Agency.

If you have any questions regarding this authorization, please contact Misty-Anne R. Marold, Senior Endangered Species Review Biologist, at (508) 389-6356 or misty-anne.marold@mass.gov.

Sincerely,



Everose Schlüter, Ph.D.
Assistant Director

cc: Colrain Conservation Commission
Mark Stinson, MA DEP Western Regional Office, Circuit Rider
Joel Rees, Emergency Response Division, MA DEP
Todd Richards, MA DFW-Fisheries
Andrew Madden, MA DFW

Slowick, David (DEP)

1-20919

From: HQS-PF-flidr-NRC@uscg.mil
Sent: Monday, September 02, 2019 9:07 AM
To: CDA-DL - DEP
Subject: NRC#1257035

NATIONAL RESPONSE CENTER 1-800-424-8802

GOVERNMENT USE ONLYGOVERNMENT USE ONLY***

Information released to a third party shall comply with any
applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 1257035

INCIDENT DESCRIPTION

*Report taken by NRC at 09:01 on 02-SEP-19
Incident Type: UNKNOWN SHEEN
Incident Cause: UNKNOWN
Affected Area: NORTH RIVER
Incident was discovered on 01-SEP-19 at 15:00 local incident time.
Affected Medium: WATER

REPORTING PARTY

Name: SAM RODE
Organization:
Address:
, MA
Email Address:

PRIMARY Phone: (413)8241241
Type of Organization: PRIVATE CITIZEN

SUSPECTED RESPONSIBLE PARTY

Name: UNKNOWN
Organization:
Address:

Type of Organization: UNKNOWN

INCIDENT LOCATION

County: FRANKLIN
City: COLRAIN State: MA
UNKNOWN SHEEN INCIDENT

RELEASED MATERIAL(S)

CHRIS Code: OUN Official Material Name: UNKNOWN OIL
Also Known As:
Qty Released: 0 UNKNOWN AMOUNT Qty in Water: 0 UNKNOWN AMOUNT

DESCRIPTION OF INCIDENT

CALLER DISCOVERED MULTIPLE FACEBOOK AND OTHER SOCIAL MEDIA POSTS OF AN UNKNOWN WHITE FOAMY SHEEN WITH A LARGE AMOUNT OF DEAD FISH IN A RIVER.

SENSITIVE INFORMATION

INCIDENT DETAILS

Platform Rig Name:

Platform Letter:

Location Area ID:

Location Block ID:

OCSG Number:

OCSF Number:

State Lease Number:

Pier Dock Number:

Berth Slip Number:

---SHEEN INFORMATION---

Sheen Color: WHITISH

Sheen Odor Description:

Sheen Travel Direction:

Sheen Size Length:

Sheen Size Width:

---WATER INFORMATION---

Body of Water: NORTH RIVER

Tributary of:

Nearest River Mile Marker:

Water Supply Contaminated: UNKNOWN

IMPACT

Fire Involved: NO Fire Extinguished: UNKNOWN

INJURIES: NO Sent to Hospital: Empl/Crew: Passenger:

FATALITIES: NO Empl/Crew: Passenger: Occupant:

EVACUATIONS:NO Who Evacuated: Radius/Area:

Damages: NO

Hours Direction of
Closure Type Description of Closure Closed Closure

Air: NO

Major
Road: NO Artery:NO

Waterway:NO

Track: NO

Passengers Transferred: NO

Environmental Impact: YES/MARINE SPECIES

Media Interest: UNKNOWN Community Impact due to Material:

REMEDIAL ACTIONS

Release Secured: UNKNOWN

Release Rate:

Estimated Release Duration:

WEATHER

ADDITIONAL AGENCIES NOTIFIED

Federal:

State/Local:

State/Local On Scene:

State Agency Number:

NOTIFICATIONS BY NRC

CENTERS FOR DISEASE CONTROL (GRASP)

02-SEP-19 09:06 (770)4887100

USCG DESK AT DHS NOC (USCG LNO)

02-SEP-19 09:06 (202)2828114

DEPT OF HEALTH AND HUMAN SERVICES (SECRETARY'S OPERATION CENTER (SOC))

02-SEP-19 09:06

DHS DEFENSE THREAT REDUCTION AGENCY (CHEMICAL AND BIOLOGICAL TECHNOLOGI

02-SEP-19 09:06 (703)7673477

DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)

02-SEP-19 09:06 (202)3661863

DOT OFFICE OF INSPECTOR GENERAL (NEW ENGLAND INVESTIGATIONS)

02-SEP-19 09:06 (617)4942701

EPA CRIMINAL INVESTIGATION DIVISION (EPA CRIMINAL INVESTIGATION DIV REG

02-SEP-19 09:06 (617)9182310

U.S. EPA I (MAIN OFFICE)

(617)7238928

USCG NATIONAL COMMAND CENTER (MAIN OFFICE)

02-SEP-19 09:06 (202)3722100

MASSACHUSETTES ENVIRONMENTAL POLICE (DISPATCH SERVICES BUREAU)

02-SEP-19 09:06 (617)6261665

NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)

02-SEP-19 09:06 (202)2829201

NOAA RPTS FOR MA (MAIN OFFICE)

02-SEP-19 09:06 (206)5264911

STATE OF MASSACHUSETTS EMA (MAIN OFFICE)

02-SEP-19 09:06 (508)8202021

USCG DISTRICT 1 (COMMAND CENTER)

02-SEP-19 09:06 (617)2238555

ADDITIONAL INFORMATION

*** END INCIDENT REPORT #1257035 ***

Report any problems by calling 1-800-424-8802

PLEASE VISIT OUR WEB SITE AT https://urldefense.proofpoint.com/v2/url?u=http-3A__www.nrc.uscg.mil&d=DwlGaQ&c=IDF7oMaPKXpkYvev9V-fVahWL0QWnGCCAfCDz1Bns_w&r=N-hNJB-JKltdTYETtwiGje4VR5OeeMZPGBWOoPU30gQ&m=b454Ep81xcpeeR7oGxCkiAtc4_GWYWDj4-hgGJsUCOQ&s=Dq6Fgg3mcdVuV1VDYqwF2sOrl-fDbeq5eYw29AjrLc&e=

Slowick, David (DEP)

1-20919

From: HQS-PF-flidr-NRC@uscg.mil
Sent: Monday, September 02, 2019 11:54 AM
To: CDA-DL - DEP
Subject: NRC#1257045

NATIONAL RESPONSE CENTER 1-800-424-8802

GOVERNMENT USE ONLYGOVERNMENT USE ONLY***

Information released to a third party shall comply with any applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 1257045

INCIDENT DESCRIPTION

*Report taken by NRC at 11:45 on 02-SEP-19

Incident Type: FIXED

Incident Cause: EQUIPMENT FAILURE

Affected Area: NORTH RIVER

Incident occurred on 01-SEP-19 at 06:00 local incident time.

Affected Medium: WATER / NORTH RIVER

REPORTING PARTY

Name: LARRY COUCH EXT 3701

Organization: BARNHARDT MANUFACTURING

Address: 247 MAIN ROAD

COLRAIN, MA 01340

Email Address:

PRIMARY Phone: (413)6243471

Type of Organization: PRIVATE ENTERPRISE

SUSPECTED RESPONSIBLE PARTY

Name: LARRY COUCH EXT 3701

Organization: BARNHARDT MANUFACTURING

Address: 247 MAIN ROAD

COLRAIN, MA 01340

PRIMARY Phone: (413)6243471

Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

247 MAIN ROAD County: FRANKLIN

City: COLRAIN State: MA Zip: 01340

RELEASED MATERIAL(S)

CHRIS Code: SFA Official Material Name: SULFURIC ACID

Also Known As:

Qty Released: 10 GALLON(S) Qty in Water: 0 UNKNOWN AMOUNT

DESCRIPTION OF INCIDENT

CALLER REPORTING THE RELEASE OF SULFURIC ACID DUE TO LEAK IN A TANK.

SENSITIVE INFORMATION

INCIDENT DETAILS

Package: N/A
Building ID:
Type of Fixed Object: MANUFACTURING FACILITY
Power Generating Facility: UNKNOWN
Generating Capacity:
Type of Fuel:
NPDES:
NPDES Compliance: UNKNOWN
---WATER INFORMATION---
Body of Water: NORTH RIVER
Tributary of:
Nearest River Mile Marker:
Water Supply Contaminated: UNKNOWN

IMPACT

Fire Involved: NO Fire Extinguished: UNKNOWN

INJURIES: NO Sent to Hospital: Empl/Crew: Passenger:
FATALITIES: NO Empl/Crew: Passenger: Occupant:
EVACUATIONS:NO Who Evacuated: Radius/Area:

Damages: NO

Hours Direction of
Closure Type Description of Closure Closed Closure

Air: NO

Major
Road: NO Artery:NO

Waterway:NO

Track: NO

Passengers Transferred: NO
Environmental Impact: UNKNOWN
Media Interest: LOW Community Impact due to Material:

REMEDIAL ACTIONS

MATERIAL CONTAINED, EXCAVATED SOIL, REPAIRS MADE, NEUTRALIZED
MATERIAL, INVESTIGATION UNDERWAY
Release Secured: YES
Release Rate:
Estimated Release Duration:

WEATHER

ADDITIONAL AGENCIES NOTIFIED

Federal:

State/Local: MADEP

State/Local On Scene:

State Agency Number:

NOTIFICATIONS BY NRC

CENTERS FOR DISEASE CONTROL (GRASP)

02-SEP-19 11:52 (770)4887100

USCG DESK AT DHS NOC (USCG LNO)

02-SEP-19 11:52 (202)2828114

CHEM SAFETY AND HAZARD INVEST BOARD (MAIN OFFICE)
(202)

CHEM SAFETY AND HAZARD INVEST BOARD (CSB AUTOMATIC NOTIFICATIONS)

02-SEP-19 11:52 (202)3780334

DEPT OF HEALTH AND HUMAN SERVICES (SECRETARY'S OPERATION CENTER (SOC))

02-SEP-19 11:52

DHS DEFENSE THREAT REDUCTION AGENCY (CHEMICAL AND BIOLOGICAL TECHNOLOGI

02-SEP-19 11:52 (703)7673477

DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)

02-SEP-19 11:52 (202)3661863

DOT OFFICE OF INSPECTOR GENERAL (NEW ENGLAND INVESTIGATIONS)

02-SEP-19 11:52 (617)4942701

EPA CRIMINAL INVESTIGATION DIVISION (EPA CRIMINAL INVESTIGATION DIV REG

02-SEP-19 11:52 (617)9182310

U.S. EPA I (MAIN OFFICE)

(617)7238928

USCG NATIONAL COMMAND CENTER (MAIN OFFICE)

02-SEP-19 11:52 (202)3722100

MASSACHUSETTES ENVIRONMENTAL POLICE (DISPATCH SERVICES BUREAU)

02-SEP-19 11:52 (617)6261665

NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)

02-SEP-19 11:52 (202)2829201

NOAA RPTS FOR MA (MAIN OFFICE)

02-SEP-19 11:52 (206)5264911

PIPELINE & HAZMAT SAFETY ADMIN (HAZARDOUS MATERIAL ACCIDENT INVESTIGATI

02-SEP-19 11:52 (202)3664031

STATE OF MASSACHUSETTS EMA (MAIN OFFICE)

02-SEP-19 11:52 (508)8202021

BOSTON LOGAN INTERNATIONAL AIRPORT (DHS/TSA REGULATORY)

02-SEP-19 11:52 (617)5612030

USCG DISTRICT 1 (COMMAND CENTER)

02-SEP-19 11:52 (617)2238555

ADDITIONAL INFORMATION

*** END INCIDENT REPORT #1257045 ***

Report any problems by calling 1-800-424-8802

PLEASE VISIT OUR WEB SITE AT https://urldefense.proofpoint.com/v2/url?u=http-3A__www.nrc.uscg.mil&d=DwlGaQ&c=IDF7oMaPKXpkYvev9V-fVahWL0QWnGCCAfCDz1Bns_w&r=N-hNJB-JKltdTYETtwiGje4VR5OeeMZPGBWOoPU30gQ&m=bKXx2pMLqLW5ckaKS08WDD9mudcvkD-wFbvs7-bRZRM&s=PNd3bk0L-uVyYUafWrxz9MNVwF7iHF2CYkf-dA9dkg&e=



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Western Regional Office • 436 Dwight Street, Springfield MA 01103 • 413-784-1100

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

October 10, 2019

Rebekah McDermott – Water Superintendent
A. Henry Phillips – Chair, Board of Commissioners
Shelburne Falls Fire District
121 State Street
Shelburne Falls, MA 01370-1017

October 10, 2019

RE: Barnhardt Sulfuric Acid Spill on the North River – September 1, 2019

Dear Ms. McDermott & Mr. Phillips;

Thank you for sharing your concerns regarding notification of any upstream releases that may affect your water district and the oversight MassDEP exercises on chemical containment. You referenced the September 1, 2019, sulfuric acid release at the Barnhardt facility.

We regret the delay in notifying your district of the suspected sulfuric acid release from the Barnhardt facility; our response was influenced by the initial report that a de minimis amount of acid was released within the containment and not released to the river. We are currently reviewing our notification protocols for down-stream receptors in suspected releases to waterways. On the afternoon of the transient release, river water pH was assessed and found to be within the normal range.

Please note, MassDEP has limited authority in oversight of the storage of hazardous chemicals; that authority rests with the State Fire Marshall. Our purview governs the storage and handling of hazardous waste as well as response to the release to the environment of oil or hazardous materials. To that end, we are conducting follow-up inspections and investigations into the sulfuric acid release at the Barnhardt facility.

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

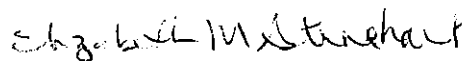
TTY# MassRelay Service 1-800-439-2370

MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

MassDEP appreciates your concern about activities in the watershed serving your public water supply and thanks you for your input.

Respectfully,

A handwritten signature in black ink, appearing to read "Elizabeth M. Stinehart". The signature is written in a cursive, flowing style.

Elizabeth M. Stinehart
Acting Deputy Regional Director
Bureau of Waste Site Cleanup



Shelburne Falls Fire District

121 State Street

Shelburne Falls, MA 01370-1017

413.625.6392 fax 413.625.6718

September 25, 2019

To: MassDEP

From: Shelburne Falls Fire District

Re: Barnhardt Sulfuric Acid Spill on the North River September 1, 2019

At approximately 6:00 a.m. on September 1, 2019, Barnhardt Manufacturing Company reported a sulfuric acid release to the North River at its Colrain, MA location. The MassDEP and several local first responders were notified and examined the site of the spill. According to eye witnesses, several on-site pictures and the local paper, *The Recorder*, several thousand fish were killed or injured due to the sulfuric acid entering the river by means of a ditch/channel leading to the river from the containment tank.

The Shelburne Falls Fire District Fire Chief notified the Superintendent of the Water Department September 2, 2019 at approximately 1:00 p.m. by phone (the Monday Labor Day holiday) 29 hours after the release of sulfuric acid into the North River. By luck and luck only, the Shelburne Falls Fire District did not have the wells on at the time of the spill! We did however turn the wells on late in the morning on the day of the spill without any knowledge of the release after the acid had wreaked havoc on the local fish population.

The Shelburne Falls Fire District is requesting that the MassDEP consider for future emergencies a way for water suppliers to be identified and notified in the case of a hazardous spill upstream from their sources. We realize that Barnhardt is regulated by different departments within the MassDEP and hazardous spills are handled by yet another division, but cross-coordination by the agency seems necessary when dangerous chemicals that can kill and maim humans and animals are released into the environment. Our water department is also working with local emergency responders to better notify us in the event of a hazardous spill along or in the North River.

Finally, water suppliers have strict requirements for storing hazardous chemicals and undergo sanitary surveys and inspections regularly. Barnhardt's sulfuric acid stored outdoors in a tank subject to the elements and within a failing concrete containment berm, near a pristine river with a channel directly into the water is, quite frankly, a disaster waiting to happen. It seems almost too obvious to point out that chemicals like sulfuric acid need an indoor storage building that has climate control, secondary containment and alarms that sound when primary containment has failed. We implore the MassDEP to strengthen the oversight of this private industry that has again threatened the health and well being of people, animals and plants that utilize the North River water resource we all share together.

Respectfully Submitted,

Rebekah McDermott – Water Superintendent

A. Henry Phillips – Chair Board
of Commissioners

Cc: Towns of Colrain, Buckland, Shelburne Emergency Responders, Franklin Regional Council of Governments, Connecticut River Conservancy, Barnhart Manufacturing Company

MASS DEPARTMENT OF ENVIRONMENTAL PROTECTION
RECEIVED
OCT - 4 2019
WERO

GREENFIELD RECORDER

(<https://www.recorder.com>)

News > Local (/News/Local/)

MassWildlife: Tens of thousands died in North River fish kill



A sulphuric acid leak reportedly was the cause of a fish kill in North River on Sunday. Contributed photo



By DOMENIC POLI (/byline?byline=By DOMENIC POLI)
)
Staff Writer

Published: 9/5/2019 10:50:55 PM
Modified: 9/5/2019 10:50:45 PM

COLRAIN — The state's assistant director of fisheries said it could take a few years for certain fish species to repopulate the North River following a sulphuric acid leak that he conservatively estimates killed tens of thousands of mostly small fish Sunday.

Todd Richards of the state Division of Fisheries and Wildlife said Thursday that native fish will replenish the river in time, though some species will do so sooner than others.

An unknown amount of acid leaked from a seam in a holding tank at the Barnhardt Manufacturing Company in Colrain sometime after 3 a.m. Sunday morning. The acid that leaked from the tank was contained in a holding area, though some spray hit the side of the building and dripped down the raceway toward the North River. David Slowick, section chief for emergency response for the state Department of Environmental Protection (MassDEP), said the leak was "not catastrophic."

Richards, however, said the event "certainly is considered a major fish kill."

Related stories

Mass DEP: No danger to public after sulphuric acid leak (/Followup-on-fish-kill-28194822)

UPDATED: Sulphuric acid leak kills fish in North River (/al-Acid-spill-in-North-River-28168513)

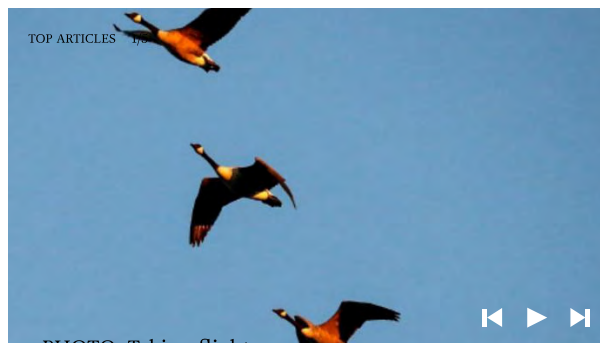


PHOTO: Taking flight

The acid flowed downstream from the plant to where the North River joins the Deerfield River at a spot commonly known as Sunburn Beach. Slowick said sulphuric acid lowers the water's pH level, burning a fish's gills.

Andy J. Danylchuk, associate professor of fish conservation at the University of Massachusetts Amherst, explained that direct contact with concentrated sulphuric acid — a colorless, odorless mineral acid often used as an industrial cleaning agent — can damage the soft tissue of fish. He also said it can be especially problematic for a fish's gills, which are responsible for gas exchange and ion regulation.

Richards said the river's native fish include white suckers, longnose dace and blacknose dace. Trout was one of the species killed by the leak in the North River. The state operates five fish hatcheries that raise trout to be released into public waters for recreational purposes. Franklin County is home to two of these facilities.

Richards said the North River will be restocked with trout in the fall and spring as long as water quality has returned. Slowick said Monday that tests taken that day indicated pH levels in the river had returned to normal.

According to a statement from the Barnhardt Manufacturing Company on Wednesday, the company reported the spill to MassDEP as soon as it was discovered and the parties have been in communication during the remediation process.

"We are sorry for any inconvenience this has caused for anyone in the community," the statement reads, adding that Barnhardt always aims to comply with state and federal environmental laws and regulations.

Some Colrain residents who live along the river, including Mark Crossman and his daughter, Zariah Ross, voiced disappointment that they were not immediately notified of the acid leak.

Catherine Skiba, regional spokesperson for MassDEP, said residents were not notified because the spill didn't pose a public threat.

"The pH of the river water was normal along the entire reach and there was no threat to the public," Skiba explained. "Had there been a threat, public notice would have been issued."

Reach Domenic Poli at:
dpoli@recorder.com or
413-772-0261, ext. 262.

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Shelburne Falls Fire District

121 State Street
Shelburne Falls, MA 01370-1017
413.625.6392 fax 413.625.6718

September 25, 2019

To: MassDEP

From: Shelburne Falls Fire District

Re: Barnhardt Sulfuric Acid Spill on the North River September 1, 2019


At approximately 6:00 a.m. on September 1, 2019, Barnhardt Manufacturing Company reported a sulfuric acid release to the North River at its Colrain, MA location. The MassDEP and several local first responders were notified and examined the site of the spill. According to eye witnesses, several on-site pictures and the local paper, *The Recorder*, several thousand fish were killed or injured due to the sulfuric acid entering the river by means of a ditch/channel leading to the river from the containment tank.


The Shelburne Falls Fire District Fire Chief notified the Superintendent of the Water Department September 2, 2019 at approximately 1:00 p.m. by phone (the Monday Labor Day holiday) 29 hours after the release of sulfuric acid into the North River. By luck and luck only, the Shelburne Falls Fire District did not have the wells on at the time of the spill! We did however turn the wells on late in the morning on the day of the spill without any knowledge of the release after the acid had wreaked havoc on the local fish population.

The Shelburne Falls Fire District is requesting that the MassDEP consider for future emergencies a way for water suppliers to be identified and notified in the case of a hazardous spill upstream from their sources. We realize that Barnhardt is regulated by different departments within the MassDEP and hazardous spills are handled by yet another division, but cross-coordination by the agency seems necessary when dangerous chemicals that can kill and maim humans and animals are released into the environment. Our water department is also working with local emergency responders to better notify us in the event of a hazardous spill along or in the North River.

Finally, water suppliers have strict requirements for storing hazardous chemicals and undergo sanitary surveys and inspections regularly. Barnhardt's sulfuric acid stored outdoors in a tank subject to the elements and within a failing concrete containment berm, near a pristine river with a channel directly into the water is, quite frankly, a disaster waiting to happen. It seems almost too obvious to point out that chemicals like sulfuric acid need an indoor storage building that has climate control, secondary containment and alarms that sound when primary containment has failed. We implore the MassDEP to strengthen the oversight of this private industry that has again threatened the health and well being of people, animals and plants that utilize the North River water resource we all share together.

Respectfully Submitted,


Rebekah McDermott – Water Superintendent


A. Henry Phillips – Chair Board
of Commissioners

Cc: Towns of Colrain, Buckland, Shelburne Emergency Responders, Franklin Regional Council of Governments, Connecticut River Conservancy, Barnhart Manufacturing Company

11066 09/01/2019 19-0000329

K1 Person/Entity Involved

Local Option

Business name (if applicable)

Area Code

Phone Number

☐ Check This Box if same address as incident location. Then skip the three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix
Number Prefix Street or Highway Street Type Suffix
Post Office Box Apt./Suite/Room City
State Zip Code

☐ More people involved? Check this box and attach Supplemental Forms (NFIRS-1S) as necessary

K2 Owner

☐ Same as person involved? Then check this box and skip the rest of this section.

Local Option

Business name (if applicable)

Area Code

Phone Number

☐ Check this box if same address as incident location. Then skip the three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix
Number Prefix Street or Highway Street Type Suffix
Post Office Box Apt./Suite/Room City
State Zip Code

L Remarks

Local Option

Called by Massachusetts Department of Environmental Protection for report of dead fish in the North River below Barnhardt Manufacturing. Had received report of small spill at same location earlier in the day and caller stated it was contained and a small quantity of sulfuric acid. Same report was sent to DEP and verified later in the day. Arrived on scene to find 2 employees transferring sulfuric acid from leaking outside 5000 gallon tank to smaller tanks in nearby mill building. Employees stated that leaking tank had sprayed acid above containment wall, onto building next to the tank and then into a drainage ditch leading to the tailrace exiting the mill facility. The tank was still leaking into the walled containment area. The employees stated that no product had entered the waterway and that they had contained the spill. The soil around the drainage ditch had been covered with lime/baking soda and then placed into steel drums. The drainage ditch and 5000 gallon tank had been covered with plastic sheating. The DEP response person (Joel Rees) informed the employees that fish were killed downstream and that product had been released into the river. It was determined that the leak had started some point after 3 am and was discovered before 6 am and additional personnel were called in to assist the workers at the scene. Colrain fire requested Shelburne Control to contact Colrain, Shelburne, Shelburne Falls and Charlemont police to clear any people from the North River until the pH levels could be monitored. Colrain fire assisted DEP with pH monitoring from Barnhardt Manufacturing down river to the junction with the Deerfield River. Levels were determined to be within normal ranges and slightly low at the Deerfield River confluence. Dead fish were present at all locations (6). Returned back to Barnhardt to meet with DEP and plan course of action. Fire units were released and DEP personnel would take over the scene and any clean up issues.

L Authorization

8C1

Officer in charge ID

Anzouni, Nick

Signature

FC

Position or rank

Assignment

09

Month

02

Day

2019

Year

Check Box if same as Officer in charge.

☒ 8C1

Member making report ID

Anzouni, Nick

Signature

FC

Position or rank

Assignment

09

Month

02

Day

2019

Year

FDID 11066 ★	State MA ★	MM 9	DD 1	YYYY 2019	Station 1	Incident Number 19-0000329 ★	Exposure 000 ★	Complete Narrative
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Narrative:

Called by Massachusetts Department of Environmental Protection for report of dead fish in the North River below Barnhardt Manufacturing. Had received report of small spill at same location earlier in the day and caller stated it was contained and a small quantity of sulfuric acid. Same report was sent to DEP and verified later in the day. Arrived on scene to find 2 employees transferring sulfuric acid from leaking outside 5000 gallon tank to smaller tanks in nearby mill building. Employees stated that leaking tank had sprayed acid above containment wall, onto building next to the tank and then into a drainage ditch leading to the tailrace exiting the mill facility. The tank was still leaking into the walled containment area. The employees stated that no product had entered the waterway and that they had contained the spill. The soil around the drainage ditch had been covered with lime/baking soda and then placed into steel drums. The drainage ditch and 5000 gallon tank had been covered with plastic sheating. The DEP response person (Joel Rees) informed the employees that fish were killed downstream and that product had been released into the river. It was determined that the leak had started some point after 3 am and was discovered before 6 am and additional personnel were called in to assist the workers at the scene. Colrain fire requested Shelburne Control to contact Colrain, Shelburne, Shelburne Falls and Charlemont police to clear any people from the North River until the pH levels could be monitored. Colrain fire assisted DEP with pH monitoring from Barnhardt Manufacturing down river to the junction with the Deerfield River. Levels were determined to be within normal ranges and slightly low at the Deerfield River confluence. Dead fish were present at all locations (6) . Returned back to Barnhardt to meet with DEP and plan course of action. Fire units were released and DEP personnel would take over the scene and any clean up issues.

A FDID <u>11066</u> * State <u>MA</u> * Incident Date <u>9/1/2019</u> * Station <u>1</u> * Incident Number <u>19-0000329</u> * Exposure <u>000</u> * Haz No <u>1</u> * <input type="checkbox"/> Delete <input type="checkbox"/> Charge		MM DD YYYY		NFIRS - 7	
				HazMat	
B HazMat ID <u>1830</u> <small>UN Number</small> <u>7664-93-9</u> <small>CAS Registration Number</small>			Chemical * <u>Sulfuric acid</u> Name		
C1 Container Type <u>20</u> <small>Container Type</small>		C2 Estimated Container Capacity <u>5</u> <small>Capacity: by volume or weight</small>		D1 Estimated Amount Released <u>53</u> <small>Amount released: by volume or weight</small>	
More hazardous Materials? Use additional sheets.		C3 Units: Capacity <small>Check one box</small> VOLUME WEIGHT 11 <input type="checkbox"/> Ounces 21 <input type="checkbox"/> Ounces 12 <input checked="" type="checkbox"/> Gallons 22 <input type="checkbox"/> Pounds 13 <input type="checkbox"/> Barrels: 42 gal. 23 <input type="checkbox"/> Grams 14 <input type="checkbox"/> Liters 24 <input type="checkbox"/> Kilograms 15 <input type="checkbox"/> Cubic feet 16 <input type="checkbox"/> Cubic meters		D2 Units: Released <small>Check one box</small> VOLUME WEIGHT 11 <input type="checkbox"/> Ounces 21 <input type="checkbox"/> Ounces 12 <input checked="" type="checkbox"/> Gallons 22 <input type="checkbox"/> Pounds 13 <input type="checkbox"/> Barrels: 42 gal. 23 <input type="checkbox"/> Grams 14 <input type="checkbox"/> Liters 24 <input type="checkbox"/> Kilograms 15 <input type="checkbox"/> Cubic feet 16 <input type="checkbox"/> Cubic meters	
		E1 Physical State When Released 1 <input type="checkbox"/> Solid 2 <input checked="" type="checkbox"/> Liquid 3 <input type="checkbox"/> Gas U <input type="checkbox"/> Undetermined			
F1 Released From: <small>Check all applicable boxes</small> <input type="checkbox"/> Below grade 1 <input type="checkbox"/> Inside/on structure <u>1</u> Story of Release 2 <input checked="" type="checkbox"/> Outside of structure		F2 Population Density 1 <input type="checkbox"/> Urban 2 <input checked="" type="checkbox"/> Suburban 3 <input type="checkbox"/> Rural		G2 Area Evacuated <input type="checkbox"/> None 1 <input type="checkbox"/> Square Feet <u> </u> 2 <input type="checkbox"/> Blocks <small>Enter Measurement</small> 3 <input type="checkbox"/> Square miles	
		G1 Area Affected 1 <input type="checkbox"/> Square Feet 2 <input type="checkbox"/> Blocks 3 <input type="checkbox"/> Square miles <u> </u> <small>Enter Measurement</small>		G3 Estimated Number of People Evacuated <u> </u> G4 Estimated Number of Buildings Evacuated <u> </u> <input type="checkbox"/> None	
J Cause Of Release * 1 <input type="checkbox"/> Intentional 2 <input type="checkbox"/> Unintentional release 3 <input checked="" type="checkbox"/> Container/containment failure 4 <input type="checkbox"/> Act of nature 5 <input type="checkbox"/> Cause under investigation U <input type="checkbox"/> Cause undetermined after investigation		K Factors Contributing to Release <small>Enter up to three contributing factors</small> <u>56</u> <u>Lack of maintenance, worn out</u> <small>Factor Contributing To Release (1)</small> <u>54</u> <u>Other part failure, leak, or</u> <small>Factor Contributing To Release (2)</small> <u> </u> <u> </u> <small>Factor Contributing To Release (3)</small>		L Factors Affecting Mitigation <small>Enter up to three factors or impediments that affected the mitigation of the incident</small> <u>11</u> <u>Released into water table</u> <small>Factor or impediment (1)</small> <u>21</u> <u>Release of extremely dangerous</u> <small>Factor or impediment (2)</small> <u>36</u> <u>Communications delay</u> <small>Factor or impediment (3)</small>	
M Equipment Involved In Release <input type="checkbox"/> None <u> </u> <small>Equipment involved in release</small> Brand <u> </u> Model <u> </u> Serial Number <u> </u> Year <u> </u>		N Mobile Property Involved In Release <input type="checkbox"/> None <u> </u> <small>Mobile property type</small> <u> </u> <small>Mobile property make</small> <u> </u> <u> </u> <small>Mobile property model Year</small> <u> </u> <u> </u> <small>License plate Number State</small> <u> </u> <small>DOT Number/ ICC Number</small>		O HazMat Disposition * 1 <input type="checkbox"/> Completed by fire service only 2 <input type="checkbox"/> Completed w/ fire service present 3 <input type="checkbox"/> Released to local agency 4 <input type="checkbox"/> Released to county agency 5 <input checked="" type="checkbox"/> Released to state agency 6 <input type="checkbox"/> Released to federal agency 7 <input type="checkbox"/> Released to a private agency 8 <input type="checkbox"/> Released to property owner or manager O HazMat Civilian Casualties Deaths <u> </u> Injuries <u> </u>	

MM		DD		YYYY						Hazmat	
11066	MA	9	1	2019	1	19-0000329	0				Narrative
FDID *	State *	Incident Date *		Station	Incident Number *		Exposure *				

Hazardous Materials Narrative:

9/3/19-- DEP called to report that a total of 53 gallons of 91% sulfuric acid was released outside of containment. At least 26 gallons of that made it to the water and to the North River.

MM		DD		YYYY						Hazmat	
11066	MA	9	1	2019	1	19-0000329	0	Narrative			
FDID *	State *	Incident Date *		Station	Incident Number *	Exposure *					

9/3/19-- DEP called to report that a total of 53 gallons of 91% sulfuric acid was released outside of containment. At least 26 gallons of that made it to the water and to the North River.

A	FDID 11066	State MA	MM 9	DD 1	YYYY 2019	Station 1	Incident Number 19-0000329	Exposure 000	<input type="checkbox"/> Delete <input type="checkbox"/> Change	NFIRS - 9 Apparatus or Resources
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B Apparatus or Resource	Date and Times <small>Check if same as alarm date</small> Month Day Year Hour Min	Sent <input checked="" type="checkbox"/>	Number of People <input type="checkbox"/>	Use <small>Check ONE box for each apparatus to indicate its main use at the incident.</small>	Actions Taken
1 ID 8C1 Type 99	Dispatch <input checked="" type="checkbox"/> 9 1 2019 16:29 Arrival <input checked="" type="checkbox"/> 9 1 2019 16:32 Clear <input checked="" type="checkbox"/> 9 1 2019 20:00	<input checked="" type="checkbox"/>	1	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input checked="" type="checkbox"/> Other	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
2 ID 8E2 Type 11	Dispatch <input checked="" type="checkbox"/> 9 1 2019 16:29 Arrival <input checked="" type="checkbox"/> 9 1 2019 16:32 Clear <input checked="" type="checkbox"/> 9 1 2019 20:00	<input checked="" type="checkbox"/>	4	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input checked="" type="checkbox"/> Other	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
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4 ID <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Type <div style="border: 1px solid black; width: 40px; height: 15px;"></div>	Dispatch <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Arrival <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Clear <div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
5 ID <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Type <div style="border: 1px solid black; width: 40px; height: 15px;"></div>	Dispatch <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Arrival <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Clear <div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
6 ID <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Type <div style="border: 1px solid black; width: 40px; height: 15px;"></div>	Dispatch <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Arrival <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Clear <div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
7 ID <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Type <div style="border: 1px solid black; width: 40px; height: 15px;"></div>	Dispatch <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Arrival <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Clear <div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
8 ID <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Type <div style="border: 1px solid black; width: 40px; height: 15px;"></div>	Dispatch <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Arrival <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Clear <div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
9 ID <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Type <div style="border: 1px solid black; width: 40px; height: 15px;"></div>	Dispatch <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Arrival <div style="border: 1px solid black; width: 40px; height: 15px;"></div> Clear <div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>

Type of Apparatus or Resources

Ground Fire Suppression

- 11 Engine
- 12 Truck or aerial
- 13 Quint
- 14 Tanker & pumper combination
- 16 Brush truck
- 17 ARF (Aircraft Rescue and Firefighting)
- 10 Ground fire suppression, other

Heavy Ground Equipment

- 21 Dozer or plow
- 22 Tractor
- 24 Tanker or tender
- 20 Heavy equipment, other

Aircraft

- 41 Aircraft: fixed wing tanker
- 42 Helitanker
- 43 Helicopter
- 40 Aircraft, other

Marine Equipment

- 51 Fire boat with pump
- 52 Boat, no pump
- 50 Marine apparatus, other

Support Equipment

- 61 Breathing apparatus support
- 62 Light and air unit
- 60 Support apparatus, other

Medical & Rescue

- 71 Rescue unit
- 72 Urban Search & rescue unit
- 73 High angle rescue unit
- 75 BLS unit
- 76 ALS unit
- 70 Medical and rescue unit, other

More Apparatus?
Use Additional
Sheets

Other

- 91 Mobile command post
- 92 Chief officer car
- 93 HazMat unit
- 94 Type 1 hand crew
- 95 Type 2 hand crew
- 99 Privately owned vehicle
- 00 Other apparatus/resource
- NN None
- UU Undetermined

NFIRS-9 Revision 11/17/98

A		FDID 11066 *		State MA *		Incident Date 9 1 2019 *		Station 1		Incident Number 19-0000329 *		Exposure 000 *		<input type="checkbox"/> Delete <input type="checkbox"/> Change		NFIRS - 10 Personnel	
B Apparatus or Resource *		Date and Times								Sent		Number of People		Use		Actions Taken	
		<small>Check if same as alarm date</small> Month Day Year Hours/mins								<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input checked="" type="checkbox"/> Other		<small>Check ONE box for each apparatus to indicate its main use at the incident.</small> <small>List up to 4 actions for each apparatus and each personnel.</small>	
1 ID 8C1 Type 99		Dispatch <input checked="" type="checkbox"/> 9 1 2019 16:29 Arrival <input checked="" type="checkbox"/> 9 1 2019 16:32 Clear <input checked="" type="checkbox"/> 9 1 2019 20:00		Sent <input checked="" type="checkbox"/>		Number 1											
Personnel ID		Name		Rank or Grade		Attend		Action Taken		Action Taken		Action Taken		Action Taken			
8C1		Anzouni, Nick		FC		X											
2 ID 8E2 Type 11		Dispatch <input checked="" type="checkbox"/> 9 1 2019 16:29 Arrival <input checked="" type="checkbox"/> 9 1 2019 16:32 Clear <input checked="" type="checkbox"/> 9 1 2019 20:00		Sent <input checked="" type="checkbox"/>		Number 4											
Personnel ID		Name		Rank or Grade		Attend		Action Taken		Action Taken		Action Taken		Action Taken			
8C4		Donelson, Douglas		LT		X											
8C5		Worden, Kevin		LT		X											
8P18		Gabaree, Michael		PR		X											
8P31		Adams, David				X											
3 ID Type 		Dispatch <input type="checkbox"/> Arrival <input type="checkbox"/> Clear <input type="checkbox"/> 		Sent <input type="checkbox"/>		Number 											
Personnel ID		Name		Rank or Grade		Attend		Action Taken		Action Taken		Action Taken		Action Taken			
						<input type="checkbox"/>											
						<input type="checkbox"/>											
						<input type="checkbox"/>											
						<input type="checkbox"/>											
						<input type="checkbox"/>											
						<input type="checkbox"/>											
						<input type="checkbox"/>											

FDID	11066	State	MA	Incident Date	9	1	2019	Station	1	Incident Number	19-0000329	Exposure	000	Responding Units/Personnel
------	-------	-------	----	---------------	---	---	------	---------	---	-----------------	------------	----------	-----	----------------------------

Unit	Notify Time	Enroute Time	Arrival Time	Cleared Time
8C1 POV	16:29:00	16:29:00	16:32:00	20:00:00

Staff ID\Staff Name	Activity	Rank	Position	Role
8C1 Anzouni, Nick	Fire At Scene	Fire Chief	Fire Chief	Incident Com

8E2 2014 HME 2000/700/30A 4x4 Pumper	16:29:00	16:29:00	16:32:00	20:00:00
--------------------------------------	----------	----------	----------	----------

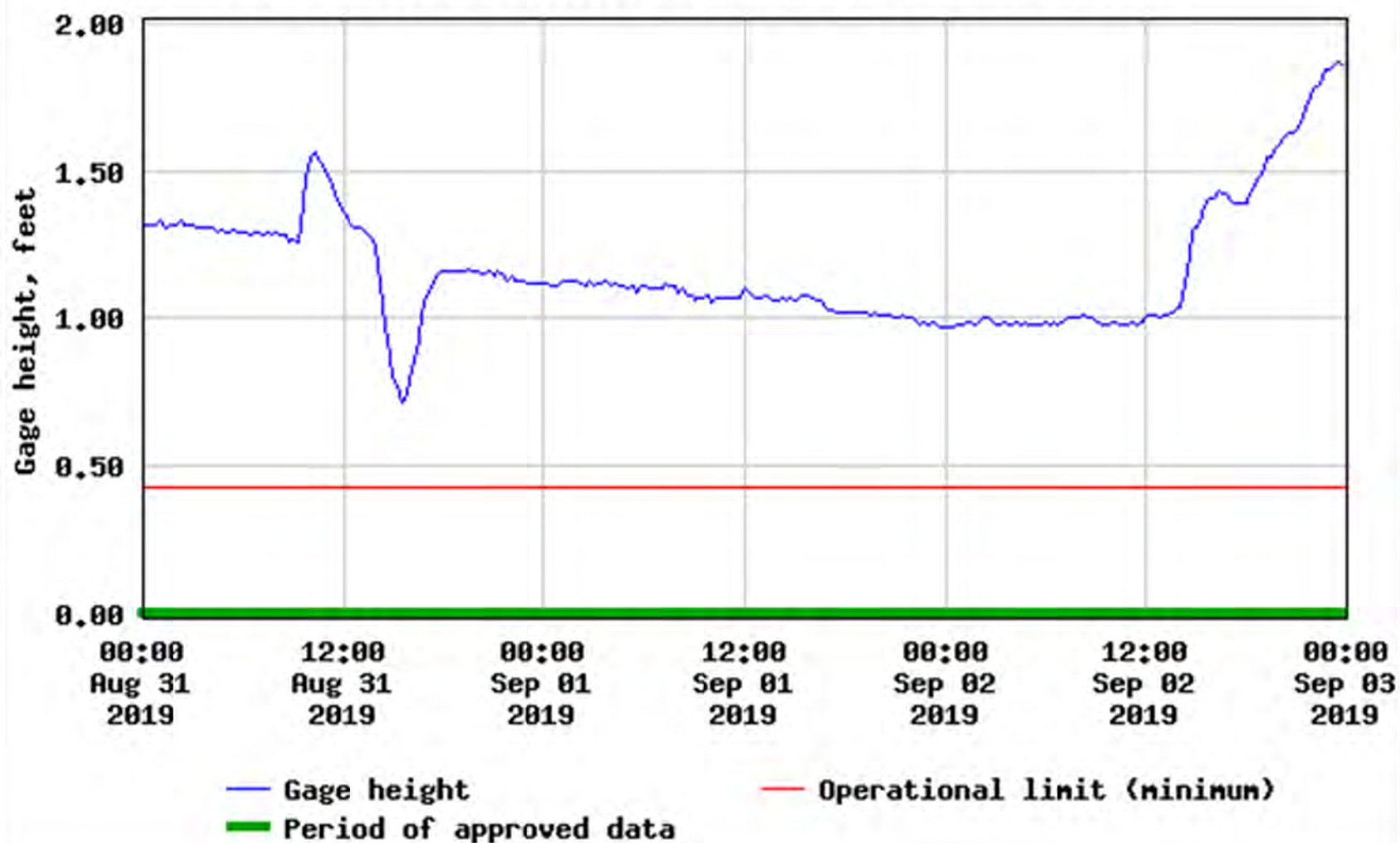
Staff ID\Staff Name	Activity	Rank	Position	Role
8C4 Donelson, Douglas	Fire At Scene	Lieutenant	Fire Lieuten	
8C5 Worden, Kevin	Fire At Scene	Lieutenant	Fire Lieuten	
8P18 Gabaree, Michael	Fire At Scene	Probationar	Fire Fighter	
8P31 Adams, David	Fire At Scene		Fire Fighter	

A FDID * 11066 * State * MA * Incident Date * 9/1/2019 * Station * 1 * Incident Number * 19-0000329 * Exposure * 000 * <div style="text-align: right;">Delete <input type="checkbox"/> NFIRS - 11 Change <input type="checkbox"/> Arson</div>	
B Agency Referred To <input type="checkbox"/> None <div style="display: flex; justify-content: space-between;"><div>Street Address <div>Mass Dept of</div></div><div>Their Case Number <div></div></div></div> <div style="display: flex; justify-content: space-between;"><div>Agency Name <div></div></div><div>City <div></div></div><div>Their ORI <div></div></div></div> <div style="display: flex; justify-content: space-between;"><div>Agency Phone Number <div></div></div><div>State <div></div> Zip Code <div></div></div><div>Their Federal Identifier (FID) <div></div> Their FID# <div></div></div></div>	
C Case Status 1 <input checked="" type="checkbox"/> Investigation open 2 <input type="checkbox"/> Investigation closed 3 <input type="checkbox"/> Investigation inactive 4 <input type="checkbox"/> Closed with arrest 5 <input type="checkbox"/> Closed with exceptional clearance	D Availability of Material First Ignited 1 <input type="checkbox"/> Transport to scene 2 <input type="checkbox"/> Available at scene U <input type="checkbox"/> Unknown
E Suspected Motivation Factors Check up to three factors <div style="display: flex; flex-wrap: wrap;"><div style="width: 33%;">11 <input type="checkbox"/> Extortion</div><div style="width: 33%;">22 <input type="checkbox"/> Hate crime</div><div style="width: 33%;">42 <input type="checkbox"/> Vanity/recognition</div><div style="width: 33%;">54 <input type="checkbox"/> Burglary</div><div style="width: 33%;">12 <input type="checkbox"/> Labor unrest</div><div style="width: 33%;">23 <input type="checkbox"/> Institutional</div><div style="width: 33%;">43 <input type="checkbox"/> Thrills</div><div style="width: 33%;">61 <input type="checkbox"/> Homicide concealment</div><div style="width: 33%;">13 <input type="checkbox"/> Insurance fraud</div><div style="width: 33%;">24 <input type="checkbox"/> Societal</div><div style="width: 33%;">44 <input type="checkbox"/> Attention/sympathy</div><div style="width: 33%;">62 <input type="checkbox"/> Burglary concealment</div><div style="width: 33%;">14 <input type="checkbox"/> Intimidation</div><div style="width: 33%;">31 <input type="checkbox"/> Protest</div><div style="width: 33%;">45 <input type="checkbox"/> Sexual excitement</div><div style="width: 33%;">63 <input type="checkbox"/> Auto theft concealment</div><div style="width: 33%;">15 <input type="checkbox"/> Void contract/lease</div><div style="width: 33%;">32 <input type="checkbox"/> Civil unrest</div><div style="width: 33%;">51 <input type="checkbox"/> Homicide</div><div style="width: 33%;">64 <input type="checkbox"/> Destroy records/evidence</div><div style="width: 33%;">21 <input type="checkbox"/> Personal</div><div style="width: 33%;">41 <input type="checkbox"/> Fireplay/curiosity</div><div style="width: 33%;">52 <input type="checkbox"/> Suicide</div><div style="width: 33%;">00 <input type="checkbox"/> Other motivation</div><div style="width: 33%;">53 <input type="checkbox"/> Domestic violence</div><div style="width: 33%;">UU <input type="checkbox"/> Unknown motivation</div></div>	
F Apparent Group Involvement Check up to three factors 1 <input type="checkbox"/> Terrorist group 2 <input type="checkbox"/> Gang 3 <input type="checkbox"/> Anti-government group 4 <input type="checkbox"/> Outlaw motorcycle organization 5 <input type="checkbox"/> Organized crime 6 <input type="checkbox"/> Racial/ethnic hate group 7 <input type="checkbox"/> Religious hate group 8 <input type="checkbox"/> Sexual preference hate group 0 <input type="checkbox"/> Other group N <input type="checkbox"/> No Group involvement, acted alone U <input type="checkbox"/> Unknown	H Incendiary Devices Select one from each category <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">CONTAINER 11 <input type="checkbox"/> Bottle (Glass) 14 <input type="checkbox"/> Pressurized Container 17 <input type="checkbox"/> Box 12 <input type="checkbox"/> Bottle (Plastic) 15 <input type="checkbox"/> Can 00 <input type="checkbox"/> Other Container 13 <input type="checkbox"/> Jug 16 <input type="checkbox"/> Gasoline or fuel can UU <input type="checkbox"/> Unknown NN <input type="checkbox"/> None</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">IGNITION/DELAY DEVICE 11 <input type="checkbox"/> Wick or Fuse 17 <input type="checkbox"/> Road flare/fuse 12 <input type="checkbox"/> Candle 18 <input type="checkbox"/> Chemical Component 13 <input type="checkbox"/> Cigarette & Matchbook 19 <input type="checkbox"/> Trailer/Streamer 14 <input type="checkbox"/> Electronic Component 20 <input type="checkbox"/> Open flame source 15 <input type="checkbox"/> Mechanical Device 00 <input type="checkbox"/> Other delay device 16 <input type="checkbox"/> Remote Control UU <input type="checkbox"/> Unknown NN <input type="checkbox"/> None</div> <div style="border: 1px solid black; padding: 5px;">FUEL 11 <input type="checkbox"/> Ordinary Combustibles 16 <input type="checkbox"/> Pyrotechnic material 12 <input type="checkbox"/> Flammable gas 17 <input type="checkbox"/> Explosive material 14 <input type="checkbox"/> Ignitable liquid 00 <input type="checkbox"/> Other material 15 <input type="checkbox"/> Ignitable solid UU <input type="checkbox"/> Unknown NN <input type="checkbox"/> None</div>
G1 Entry Method <div>Entry Method <div></div></div>	G2 Extent of Fire Involvement on Arrival <div>Extent of Fire Involvement <div></div></div>
I Other Investigative Information Check all that apply 1 <input type="checkbox"/> Code violations 2 <input type="checkbox"/> Structure for sale 3 <input type="checkbox"/> Structure vacant 4 <input type="checkbox"/> Other crimes involved 5 <input type="checkbox"/> Illicit drug activity 6 <input type="checkbox"/> Change in insurance 7 <input type="checkbox"/> Financial problem 8 <input type="checkbox"/> Criminal/Civil actions pending	
J Property Ownership 1 <input type="checkbox"/> Private 2 <input type="checkbox"/> City, town, village, local 3 <input type="checkbox"/> County or parish 4 <input type="checkbox"/> State or province 5 <input type="checkbox"/> Federal 6 <input type="checkbox"/> Foreign 7 <input type="checkbox"/> Military 0 <input type="checkbox"/> Other	K Initial Observations Check all that apply 1 <input type="checkbox"/> Windows ajar 5 <input type="checkbox"/> Fire department forced entry 2 <input type="checkbox"/> Doors ajar 6 <input type="checkbox"/> Forced entry prior to FD arrival 3 <input type="checkbox"/> Doors locked 7 <input type="checkbox"/> Security system activated 4 <input type="checkbox"/> Doors unlocked 8 <input type="checkbox"/> Security present, (didn't activate)
L Laboratory Used Check all that apply 1 <input type="checkbox"/> Local 3 <input type="checkbox"/> ATF 5 <input type="checkbox"/> Other 6 <input type="checkbox"/> Private 2 <input type="checkbox"/> State 4 <input type="checkbox"/> FBI Federal N <input type="checkbox"/> None NFIRS-11 Revision 11/17/98	

ATTACHMENT-6
USGS SHATTUCKVILLE GAUGING STATION DATA



USGS 01169000 NORTH RIVER AT SHATTUCKVILLE, MA



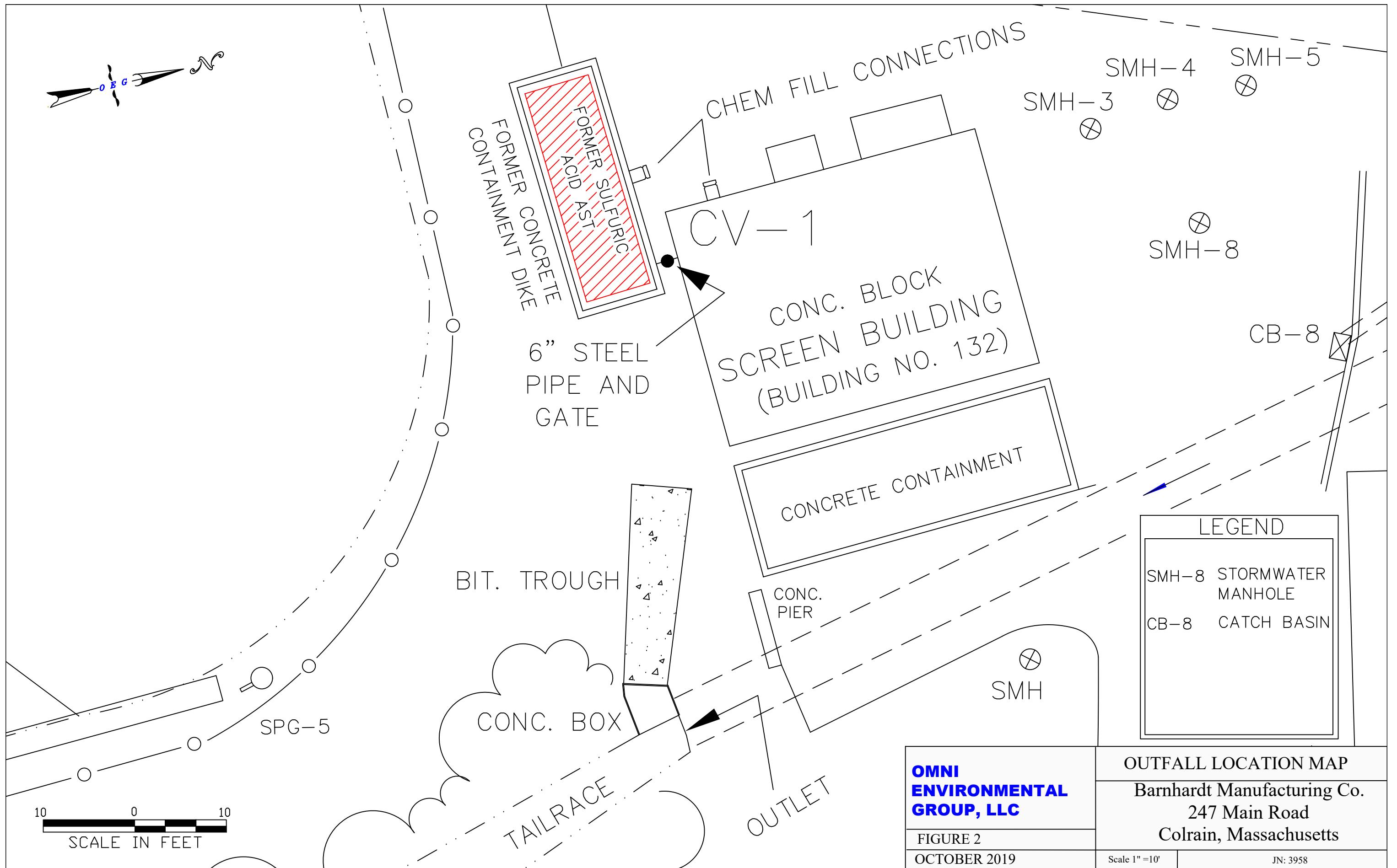
ATTACHMENT-7
SITE PLANS AND SUMMARY TABLES

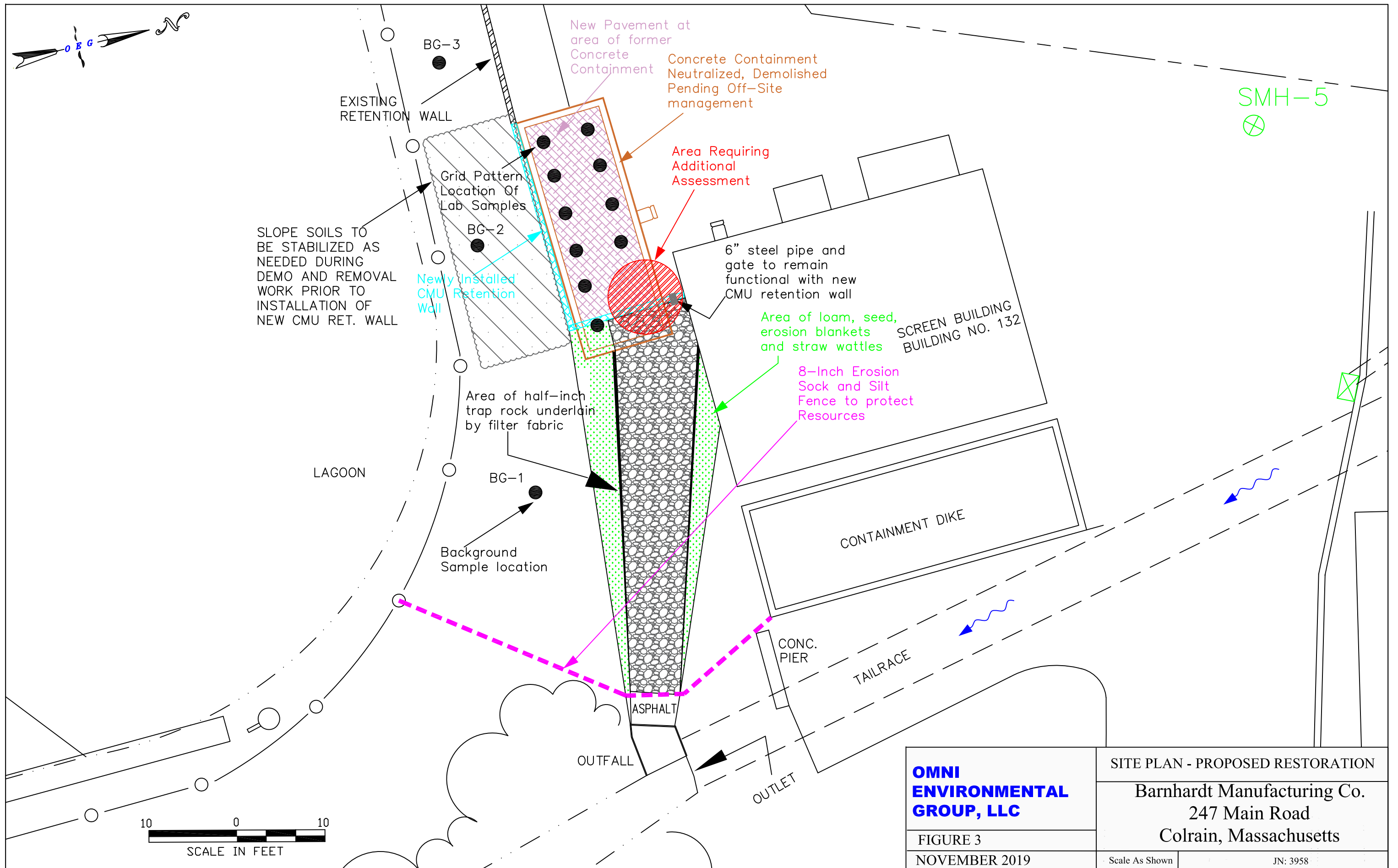


Barnhardt Manufacturing
247 Main Road
Colrain, Massachusetts



SOIL AND SURFACE WATER ASSESSMENT LOCATION PLAN





**OMNI
ENVIRONMENTAL
GROUP, LLC**

FIGURE 3
NOVEMBER 2019

SITE PLAN - PROPOSED RESTORATION

Barnhardt Manufacturing Co.
247 Main Road
Colrain, Massachusetts

Scale As Shown

JN: 3958

Table 1
Summary of Soil Sample Analytical Data - pH

Barnhardt Manufacturing Company
247 Main Road
Colrain, MA

LABORATORY ANALYTICAL RESULTS			
Sample ID	Sample Date Sample Depth (feet)	pH	Location
S-11	9/4/2019 1'	7.2	Drainage Swale
S-12	9/4/2019 1'	6.2	Drainage Swale
S-13	9/4/2019 1'	7.2	Drainage Swale
S-14B	9/4/2019 1'	6.3	Drainage Swale
S-15	9/4/2019 1'	5.8	Drainage Swale
S-16	9/4/2019 1'	5.3	Drainage Swale
S-17	9/4/2019 0'	6.2	Tailrace
S-18	9/4/2019 0'	6.7	Tailrace
S-19	9/4/2019 0'	6.4	Tailrace
S-5	10/24/2019 2-4"	8.5	Former Containment
S-5B	10/24/2019 1'	8.2	Former Containment
S-7	10/24/2019 2-4"	7.4	Former Containment
S-7B	10/24/2019 1'	7.6	Former Containment
S-8	10/24/2019 2-4"	6.6	Former Containment
S-8B	10/24/2019 1'	6.8	Former Containment
S-9	10/24/2019 2-4"	7.3	Former Containment
S-9B	10/24/2019 1'	7.1	Former Containment

Table 1
Summary of Soil Sample Analytical Data - pH

Barnhardt Manufacturing Company
247 Main Road
Colrain, MA

LABORATORY ANALYTICAL RESULTS			
Sample ID	Sample Date Sample Depth (feet)	pH	Location
S-10	10/24/2019 2-4"	8.0	Former Containment
S-10B	10/24/2019 1'	5.9	Former Containment
S-11	10/24/2019 2-4"	8.2	Former Containment
S-11B	10/24/2019 1'	8.0	Former Containment
S-12	10/24/2019 2-4"	7.8	Former Containment
S-12B	10/24/2019 1'	7.3	Former Containment
S-13	10/24/2019 2-4"	9.4	Former Containment
S-13B	10/24/2019 1'	7.9	Former Containment
S-14	10/24/2019 2-4"	8.8	Former Containment
S-14B	10/24/2019 1'	8.3	Former Containment
S-15	10/24/2019 2-4"	10	Former Containment
S-15B	10/24/2019 1'	9.6	Former Containment

Table 2
Summary of Soil and Surface Water Sample Field Screening - pH


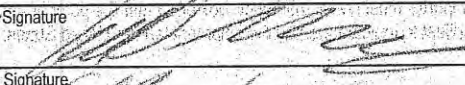
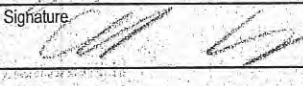
Barnhardt Manufacturing Company
247 Main Road
Colrain, MA

FIELD SCREENING RESULTS			
Sample Location	Date	Soil pH	Surface Water pH
S-1 Tailrace at Outfall	9/13/2019	7.0	7.0
S-2 Tailrace End	9/13/2019	7.0	6.5
S-3 Call Road	9/13/2019	8.0	7.5
S-4 USGS Monitor Point	9/13/2019	7.0	8.0
S-5 Rt. 112 Bridge	9/13/2019	7.0	7.5
S-6 Confluence of Rivers	9/13/2019	8.0	8.0

ATTACHMENT-8
REMEDIATION WASTE DOCUMENTATION TO DATE

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number MAD085280684	2. Page 1 of 1	3. Emergency Response Phone 800-424-9663	4. Manifest Tracking Number 020582873 JJK		
5. Generator's Name and Mailing Address BARNHARDT MANUFACTURING CO PO BOX 3 COLRAIN MA 01340				Generator's Site Address (if different than mailing address) 247 MAIN ROAD COLRAIN MA 01340			
6. Transporter 1 Company Name Western Mass Environmental, LLC				U.S. EPA ID Number MAC300010147			
7. Transporter 2 Company Name Veolia ES Technical Solutions				U.S. EPA ID Number NJD080631360			
8. Designated Facility Name and Site Address STABLEX CANADA 760 BOULEVARD INDUSTRIEL BLAINVILLE CA J7C3V4				U.S. EPA ID Number NYD080756415			
Facility's Phone: 450 430-9730							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes
	X	1. UN3260 WASTE CORROSIVE SOLID, ACIDIC, INORGANIC N.O.S. (SULFURIC ACID) 8. PGII	007	DM	3500	P	MA99
	X	2. UN3260 WASTE CORROSIVE SOLID, ACIDIC, INORGANIC N.O.S. (SULFURIC ACID) 8. PGII	003	DF	1000	P	MA99
		3.					
		4.					
14. Special Handling Instructions and Additional Information IN CASE OF HAZMAT INCIDENT CALL CHEMTREC 800-424-9300 CCN020175 WME - Ray Marciniak							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offor's Printed/Typed Name X Keith Groun - II				Signature 		Month Day Year 10 03 19	
INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
	Transporter signature (for exports only): _____						
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter Printed/Typed Name Mike Gauthier				Signature 		Month Day Year 10 03 19
	Transporter 2 Printed/Typed Name Chris DeMott				Signature 		Month Day Year 10 10 19
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input checked="" type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	Manifest Reference Number: _____						
	18b. Alternate Facility (or Generator) U.S. EPA ID Number _____						
	Facility's Phone: _____						
	18c. Signature of Alternate Facility (or Generator)						Month Day Year 10 10 19
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
	1. _____	2. _____	3. _____	4. _____			
	20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a						
	Printed/Typed Name _____				Signature _____		Month Day Year 10 10 19

SCALE RECEIVER

JOSEPH FREEDMAN CO., INC.

115 STEVENS STREET
SPRINGFIELD, MA 01104

Email: info@josephfreedmanco.com

TEL (413) 781-4444

FAX (413) 734-0790



Account: 5448

WESTERN MASS ENVIRONMENTAL, LL
93 WAYSIDE AVE.

WEST SPRINGFIELD MA 01089

Trader: PAU

Recv Date: 10/07/2019

Receiver #: 547604

Control #: 547604

F Ticket #:

Commodity	Description	Gross	Tare	Net	Price / UM	Amount
30220	HEAVY TORCHING MATERIAL	34,320	24,020	10,300	45.00 / GT	206.92
ATM	ATM Adjustment				/	-0.92
		Totals		10,300		206.00

Re: 4500 ART
247 Main Rd.
Colrain, MA



3419138862

Signature: _____

Date: _____

ATTACHMENT-9
2016 BMC FACILITY SPCC PLAN



OIL SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

**BARNHARDT MANUFACTURING COMPANY
247 MAIN ROAD
COLRAIN, MASSACHUSETTS**

Prepared For:

Barnhardt Manufacturing Co.
247 Main Road
Colrain, Massachusetts 01340

Prepared By:

Omni Environmental Group LLC
6 Lancaster County Road
Harvard, Massachusetts 01541

**Project No. 3958
AUGUST 2016**

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OIL SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

BARNHARDT MANUFACTURING COMPANY 247 MAIN ROAD COLRAIN, MASSACHUSETTS

1.0 INTRODUCTION

The following Spill Prevention, Control, and Countermeasures (SPCC) Plan was prepared on behalf of Barnhardt Manufacturing Company (herein referred to as BMC) for its facility located at 247 Main Road, Colrain, Massachusetts (the Site). This plan was prepared by Omni Environmental Group (OEG) of 6 Lancaster County Road, Harvard, Massachusetts and is designed to achieve compliance with Federal Regulation 40 CFR Part 112, and the Massachusetts Contingency Plan (MCP - 310 CMR 40.0000).

An SPCC Plan Amendment Log is provided in [Appendix A](#). The SPCC Plan Inspection Forms for the facility are provided in [Appendix B](#). The Applicability of Substantial Harm Criteria is provided in [Appendix C](#). The Record of Annual Discharge Prevention Briefing and Training is provided in [Appendix D](#).

A Locus Plan of the Site and surrounding area is provided as [Figure 1](#). A Site Plan of the facility is provided as [Figure 2](#). These plans display pertinent features including the location and contents of each fixed oil storage container, the footprint of the Site buildings, details related to the oil storage areas, sheet flow and local drainage system(s), and surface water bodies.

The major objectives of an SPCC Plan are to reduce the potential for spills and to improve the ability to handle such incidents should they occur. In order to encourage these skills, it is important that a copy of the plan be conspicuously posted at the Colrain main office and other pertinent locations of the facility where facility personnel may read and refer to it.

This SPCC Plan is a working document designed to be a tool BMC uses regularly to prevent or minimize spills. BMC is committed to providing the necessary resources to establish and maintain the SPCC Plan set forth herein.

1.1 Management Approval

The responsible party for management and implementation of this SPCC Plan is:

Sharon Ziemek
Health, Safety &
Environmental Compliance Manager
247 Main Road
Colrain, MA 01752
Tel: (413) 624-3471, ext. 3702

This SPCC Plan has been prepared in accordance with sound engineering practices and has the full approval of BMC management at a level of authority to commit the necessary resources to fully implement this SPCC Plan. This approval extends to the commitment of manpower, equipment and materials required to expeditiously control and remove any harmful quantity of petroleum-based substances which may be spilled on the BMC Colrain facility referenced herein and/or which may be discharged to navigable waterways. All levels of management and operating personnel are required to support the intent and procedures as set forth in this document.

Signature

Print Name

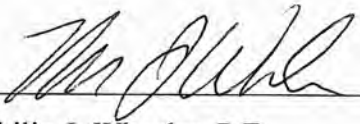
Title

Date

1.2 P.E. SPCC Plan Certification

CERTIFICATION STATEMENT

I hereby certify that I have examined the subject facility and related information, and being familiar with the provisions of 40 CFR Part 112, attest that the following plans have been prepared in accordance with good engineering practice.


Philip J. Wheeler, P.E.

37354
Massachusetts Registration No.



8/29/16
Date

1.2.1 Amendments to SPCC Plan by Owners or Operators

Pursuant to 40 CFR Part 112.5, when there is a change in design, construction, operation or maintenance that materially effects a facilities potential for discharge as described in Part 112.1(b), the owner/operator of the facility shall amend the SPCC Plan in accordance with the general requirements of Part 112.7. An amendment under this section must be prepared within six (6) months and implemented as soon as possible, but no later than six (6) months following preparation of the amendment. Notwithstanding, a complete review and evaluation of the SPCC Plan must be conducted once every five (5) years from the date the facility becomes subject to SPCC rule. As a result of the review, a facility must amend its SPCC Plan within six (6) months of the review to include more effective oil prevention and control measures (if available) that significantly reduce the potential to incur a discharge at the facility. The facility must implement any such amendment as soon as possible, but no later than six (6) months following the preparation of the amendment.

Facilities must document the completion of the SPCC Plan review and evaluation, and must sign a statement as to whether the facility will amend the SPCC Plan. A Professional Engineer must certify any technical amendment(s) to the SPCC Plan in accordance with 40 CFR Part 112.3(d). The SPCC Plan Amendment Log is provided in [Appendix A](#).

1.3 State Regulation

The Commonwealth of Massachusetts has no additional requirements specific to SPCC plans. Federal regulations are applied in Massachusetts. However, the MCP specifies response actions and reporting requirements related to oil releases to the environment. A sudden, continuous or intermittent release to the environment of any oil or hazardous material (OHM) in a quantity equal to or greater than the applicable Reportable Quantity (RQ) and where it is likely that the release occurred within any period of 24 consecutive hours or less must be reported to the Massachusetts Department of Environmental Protection (MassDEP) within two hours. The RQ for oils (i.e. gasoline, diesel fuel, #2 fuel oil, etc.) is 10 gallons. There are other reporting criteria

that would be applicable to other quantities and durations of oil releases, which are referenced under 310 CMR 40.0300.

1.4 Purpose

This SPCC Plan will provide a detailed description of BMC's Colrain Massachusetts facility, including the type(s) and volumes of oils located in these locations and will discuss the adequacy of spill prevention that is subject to SPCC rule and the recommended SPCC Plan amendment(s) (if any).

1.5 Recordkeeping

BMC will maintain the following SPCC-related records at the Main Office:

- Summaries of all training sessions;
- Oil storage area inspection forms;
- A record of any oil spills that occur at the facility, including documentation of telephone notification, copies of confirmation reports, and a complete description of cleanup and prevention activities; and
- A copy of the SPCC Plan, with any amendments.

In addition, a copy of the SPCC Plan should be maintained in the locations of oil storage referenced herein and subject to this SPCC Plan.

2.0 SUBPART A - CONSIDERATIONS UNDER 40 CFR 112.7

2.1 Facility Conformance with 40 CFR 112.7(a)(1) & (2)

BMC has taken all reasonable steps to comply with 40 CFR Part 112, as discussed herein this SPCC Plan.

2.2 Physical Layout of Facility - 40 CRF 112.7(a)(3) & (i)

The Site is located in a mixed industrial/residential area within the Town of Colrain (refer to [Figure 1](#)). The Site is abutted by vacant industrial land to the North (former AF&F facility), Main Road (i.e. Route 112) to the east, and the North River to the west and south. The Tailrace Brook runs from north to south in the eastern portion of the Site ([Figure 2](#)) and discharges into the North River immediately south of the Site. The facility is a manufacturing plant which utilizes petroleum in auxiliary equipment for steam and hydraulics for converting raw cotton into bales of clean, white absorbent cotton and contains multiple buildings and structures utilized for these manufacturing processes. The facility maintains a wastewater treatment plant (WWTP) as part of facility operations, which discharges to the North River under permit.

According to information provided by BMC, the oil-filled containers located at the Site (as shown on [Figure 2](#)) are as follows:

- Four (4) 20,000-gallon ultralow sulfur (ULS) #2 diesel ASTs located immediately south of Building 117, identified as AST-1 through AST-4;
- One (1) 500-gallon diesel AST located immediately west of Building 117, identified as AST-5;
- One (1) KVA non-Polychlorinated Biphenyl (PCB) filled transformer (~750 gallons) located north of Building 134, identified as T-1;
- One (1) KVA non-PCB filled transformer (~250 gallons) located south of Building 134, identified as T-2;
- One (1) cake maker pump hydraulic oil reservoir located within Building 134 (~100 gallons), identified as P-1;
- Interior 55-gallon drum storage for virgin motor and hydraulic oils located within Building 118, identified as D-1;
- Exterior 55-gallon drum storage for used oils located immediately east of Building 118, identified as D-2;

- Two (2) bailer hydraulic oil pump reservoirs located within Building 134 (~115 gallons per reservoir), identified as P-2A and P-2B; and
- One (1) waste bailer oil pump reservoir located within Building 118, identified as P-3.

Total storage volume is approximately 82,370 gallons

Access to the Site ASTs (AST-1 through AST-5) is limited to authorized Barnhardt personnel, authorized visitors and Barnhardt's fuel vendor(s). Access to the oil-filled electrical transformers (T-1 and T-2) located at the Site is restricted by steel enclosures and locked entries. Access to the hydraulic oil reservoirs associated with P-1, P-2A and P-2B is restricted to authorized personnel and by locked entry to Building 134. Access to interior 55-gallon drum storage area D-1 is restricted to authorized personnel and by locked entry to Building 118. Access to exterior 55-gallon drum storage area D-2 is restricted to authorized personnel and by locked entry on the storage container. The BMC facility is well light during dark hours.

Excluding T-1 and T-2, all of the aforementioned oil-filled containers are equipped with *Passive Secondary Containment*. *Active Secondary Containment* is available for all oil-filled containers at the facility.

The facility currently contains a liquefied petroleum gas (LPG) storage area located north of the Ant Hill Pump House (refer to [Figure 2](#)). LPG is a "natural gas" and EPA does not consider highly volatile liquids that volatilize on contact with air or water (i.e. LPG) to be oil (67 FR 47076). As such, the storage/use of LPG at this facility is not regulated under SPCC rule.

According to BMC, no additional oil-filled AST or UST are known to exist at the Site. However, additional non-oil containing AST and underground storage tanks (UST) associated with on-Site manufacturing process are present. The facility is not located in an area that would generally represent a potential ignition source for off-Site flammable/combustible materials.

2.2.1 BMC Bulk Storage Chart

Tank Type & Material	Volume (gallons)	Product Stored	Location	Comment	Bottom of Tank Visible?
Bulk ASTs Steel (4)	20,000	ULS #2 Diesel	Concrete AST Platform south of Building 117	Store no more than 40,000 gallons in 4 ASTs	Yes. ASTs on cradle supports.
55-gallon Drums Steel	55 to 220	Virgin oils	Building 119 Interior	Stores 0 to 4 drums as needed	No. Drums set on interior concrete floor
55-gallon Drums Steel	55 to 220	Waste oils	Building 119 Exterior waste oil container	Stores 0 to 4 drums as needed	No. Drums set on exterior container base.
Oil Filled Hydraulic Reservoirs	100 to 115	Hydraulic oils	Building 134 and Building 118	Auxiliary equipment containing hydraulic oil reservoirs and feed line	No. Reservoirs within equipment.
Electrical Transformers	250 to 750	MODF (non-PCB)	Northeast and south of Building 134	Oil filled electrical equipment	No. Transformers within enclosures set on concrete pads.
AST Steel	500	Diesel fuel	West of Building 117	Stores no more than 500 gallons in 1 AST	Yes. ASTs on cradle supports.

2.3 Discharge Prevention Measures - 40 CRF 112.7(a)(3)(ii)

Discharge prevention measures are those steps or procedures taken to minimize the potential for a discharge of oil during operations conducted at BMC's Colrain facility. This includes an evaluation of the following:

- Out-of-Service connections;
- Piping Support Designs;

- Aboveground tanks, valves and related appurtenance maintenance and inspections;
- Protection of aboveground tank systems from damage resulting from traffic; and
- The loading, unloading and transferring of oils at the facility.

Out-of-Service Connections

If a tank or oil storage container is taken Out-of-Service, it shall be capped, or blank-flanged at the transfer point, or otherwise sealed and labeled as “Out-of-Service” to prevent unwarranted use and/or a spill of oil. Presently, there are no such pipelines, tanks or oil storage containers with such designations at BMC’s Colrain facility.

Piping Support Designs

The piping supports associated with the ASTs located at BMC’s facility are designed to allow for expansion and contraction and to minimize corrosion and abrasion of the steel piping.

Aboveground tanks, valves and related appurtenance Inspections

Aboveground tanks, valves, piping and related appurtenances shall be inspected on a regular basis with particular attention paid to the conditions of (as applicable) pipes, flange joints, expansion joints, valve glands and bodies, catch pans, piping supports, valves, metal surfaces and areas of piping where leaks may occur. All aboveground piping should be marked for content (#2 fuel oil, hydraulic oil, etc.). Inspection Forms are provided in [Appendix B](#).

Aboveground Piping Protection from Vehicular Traffic

All aboveground piping shall be protected from damage from vehicular traffic by way of barriers, bollards, clearance and warning signs, or verbal warnings upon entering a facility. The vast majority of the aboveground piping is located above the bulk ASTs, above the confines of the bulk loading area and within Buildings 117, 119 and 134. The oils contained within AST-1 through AST-5 are transferred to the appropriate portions of the facility via steel piping. The transfer piping is labeled and is located above ground and is supported by 17’6” high pipe and

conduit racking extending across the unloading area to Building 117 (i.e. boiler room). Due to the height and locations of the transfer piping, there is minimal opportunity for this piping to be damaged by vehicular or pedestrian traffic. The piping and supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

This piping is inspected monthly to determine the condition of joints, supports, valves and overall integrity of the piping. A monthly inspection checklist is provided in [Appendix B](#).

Areas where above ground piping are located near vehicular traffic, protection from damage is provided by signage, barriers and warnings.

Loading, Unloading and Transfer of Oil at the Facility

As available, BMC personnel shall oversee vendor's bulk off-loading activities and shall ensure that the facility provides for general containment under SPCC Rule during bulk off-loading. All facilities shall comply with the minimum requirements set forth by the US Department of Transportation (DOT) for loading/off-loading activities, including:

- Smoking during off-loading or loading activities is strictly forbidden, including nearby persons whom may be smoking, lighting matches, carrying a flame, etc.;
- Prevent fire or ignition sources during off-loading or loading activities;
- The trucks hand brake shall be set while conducting off-loading or loading activities and all other reasonable precautions shall also be taken to prevent motion of the vehicle during the off-loading/loading action;
- A bulk tank shall be attended to by a qualified person during the off-loading/loading activity. A qualified person is considered to be "attending" to a bulk tank if he/she is alert, within a direct line of Site of the tank and transfer piping to the extent practical and within 25 feet of the tank.

- Unless the engine of the truck is utilized in the transfer of product, the engine shall be shut off while oil is being transferred to or from a truck.

Prior to conducting a bulk delivery, BMC shall notify the vendor(s) of the requested delivery, and BMC shall confirm the type and volume of oil(s) to be delivered to each tank, and visually confirm that the tank gauges indicate sufficient room for the delivery.

The four (4) bulk ASTs located south of Building 117 are equipped with top-mounted visual tank gauges (bobber and pulley), and vent pipes. The supply piping are complete with a ball valve/check valve/ball cap assemblies within the diked area that open/close distribution pipes for ULS #2 diesel supplies. Each bulk AST contains a gate valve at the union of the tank and supply piping to access or shut off a particular tank.

Each AST is complete with leak detection devices that monitor the annular space between the inner and outer wall of each tank, fill gauges and emergency vents. Prior to delivery, the volume of product in the tank is confirmed to ensure sufficient space for the off-loading. The off-loading operations at the facility are conducted via camlock connections within the containment area to prevent accidental releases.

Warning signs are present to prevent vehicles from departing prior to completely disconnecting the product transfer line(s). These signs shall instruct the attendant(s) loading of off-loading to examine all valves, hoses, connections, fittings and lower most drain outlets of the vehicle for signs of leakage prior to loading, off-loading, relocation and/or departure.

The 500-gallon ASTs located west of Building 117 is equipped with visual tank gauges and scully-type unfill connector. The ASTs is further equipped with audible alarm that whistles as the tank level approaches 90% capacity.

The diesel AST is used for providing fuel to facility machinery. Prior to delivery to the tank, the volume of product in the tank is confirmed to ensure sufficient space for the off-loading.

Spill Detection at the Facility

Any appreciable or sudden loss of oil from the inner and/or outer walls of AST-1 through AST-5 maintained at the Barnhardt facility will result in an alarm condition on the associated electronic tank monitoring systems and will lead to an investigation into the cause of the alarm condition and ultimately, the identification of the release. All of these oil filled ASTs are installed in a manner that provides for inspectors to identify any potential issues. Leaks that are generated from faulty flanges, piping or valves from the ASTs are anticipated to be discovered during daily operations, or during Barnhardt facility inspections. Facility inspections of the oil-filled ASTs/unloading area are conducted on a monthly basis (minimum).

Leaks that are generated from faulty flanges, drains or valves from D-1, D-2, P-1, P-2A/P-2B and P-3 are anticipated to be discovered during daily operations, or during BMC facility inspections, conducted on a monthly basis (minimum).

Any appreciable or sudden loss of oil from electrical transformers (T-1 and T-2) located at the Barnhardt facility will result in a disruption of electrical service to the facility and will lead to an investigation into the causation and ultimately, the identification of the release. T-1 and T-2 are the property of Western Massachusetts Electrical Company (WMECO).

Barnhardt installs and/or stores equipment in a manner that allows employees to readily identify potential issues. The above grade oil storage containers are readily visible and located in areas where employees work and/or frequently travel. During inspections, Barnhardt personnel are to note any discrepancies (i.e. tampered locks/gates or signs of vandalism), the actions taken (or to be taken) to correct such conditions and notify the appropriate Barnhardt personnel. The inspection checklist is provided in [Appendix B](#). A separate checklist has been prepared for each

of the oil filled containers discussed herein. Barnhardt will retain the inspection records for 3 years, as part of the SPCC plan maintained at the Barnhardt main office (located within Building 134).

2.4 Discharge or Drainage Controls – 40 CFR 112.7(a)(3)(iii)

The Site is situated on the east bank of the North River. The vast majority of the Site is covered by the footprint of the Site buildings/structures and asphalt pavement. There is a gentle slope from northeast to southwest (in the direction of the North River) across the central and western portions of the Site. The eastern portion of the Site (including the access road) contains a moderate slope from northeast to southwest. Anticipated sheet flow across the facility is shown on [Figure 2](#). Surrounding drainage within the facility consists of:

- Six (6) stormwater catch basins (CB-1 and CB-4 through CB-8) that discharge to the Tailrace;
- Two (2) stormwater catch basins (CB-2 and CB-3) that discharge to the on-Site WWTP;
- Two (2) stormwater catch basins (CB-9 and CB-10) that discharge to dry wells;
- Six (6) sewer manholes (SMH-1 through SMH-6) that discharge to the on-Site WWTP, which subsequently discharges to the North River;
- Two (2) drainage troughs within oil unloading area and west of Building 117 that discharges to the WWTP, which subsequently discharges to the North River; and
- Two (2) containment valves (CV-1 and CV-2) that control the discharge of facility sheet flow not draining to the aforementioned catch basins to the Tailrace Brook (CV-1) or North River (CV-2).

Additional drainage features at the facility include a floor drain in Building 134 northwest of P-1 that discharge to the on Site WWTP. Additional drainage features abutting the facility include storm water catch basins along Main Road that discharge to the North River or Tailrace.

Pursuant to 40 CFR part 112.8(2), facilities in which drainage of diked areas (either in part or whole) discharge directly into a watercourse, the facility must inspect and drain the uncontaminated water in accordance with 40 CFR part 112.8(c)(3)(ii) and (iii). This includes: 1) inspecting the retained water to ensure that its presence will not cause a discharge of oil to navigable waters; and 2) open the bypass valves and reseal them following drainage under responsible supervision. As discussed, the drainage grate within the unloading area and drainage trough adjacent to the 500-gallon AST and exterior waste oil storage area is normally closed and discharges to the on-Site WWTP.

Pursuant to 40 CFR part 112.8(3), facility drainage from non-diked areas in which there is a potential for a discharge of oil must be designed to retain oil within the facility and prevent impacts to navigable waters. To comply with this part, BMC maintains two (2) stormwater control valves (CV-1 and CV-2) that can be closed and drain mat blockers that can be deployed over catch basins in the event of a release of oil from a non-diked area of the facility. The approximate location of these structures and the anticipated directions of sheet flow across the Site (leading to one or more of the aforementioned Site drainage structures) are also shown on [Figure 2](#).

The nearest surface water bodies are: 1) the Tailrace Brook located in the eastern extent of the Site; and 2) the North River which abuts the western extent of the Site (both flowing north to south). The on-Site facility drainage, WWTP effluent and the Tailrace Brook discharge to the North River. Therefore, there is a potential for spills to directly enter navigable waters at the facility.

2.4.1 BMC Bulk ASTs

Four (4) double-walled AST systems, designated by locations AST-1 through AST-4 on [Figure 2](#) are used to store ULS #2 diesel. These tanks, manufactured by Beta Tank, Inc., are situated on steel saddles on an elevated concrete base immediately south of the petroleum unloading area.

These AST systems are equipped with interstitial leak detection and an emergency vents and fill gauges.

One (1) double-walled AST system, designated by location AST-5 on [Figure 2](#) is used to store diesel fuel. This tank, manufactured by Beta Tank, Inc., is situated on steel saddles on a concrete base immediately west of Building 117. This AST system is equipped with interstitial leak detection and an emergency vent and fill gauge.

Leak detection sensors are activated if the fluid, either water or oil, enter the space between the inner and outer wall of the tank. The fuel oil pumps are situated in Building 117. The double-walled construction of the tanks and interstitial leak detection systems are considered passive secondary containment measures.

The outer wall of each of these ASTs is considered *Passive Secondary Containment* systems. There are no catch basins located in the immediate vicinity of these ASTs and discharge into the aforementioned drainage trough (discharge valve normally closed) leads to the on-Site WWTP.

Spill kits containing sorbent materials (granular absorbents, pads, booms, etc.) are maintained by BMC at the facility in sufficient quantities for use as *Active Secondary Containment*.

2.4.2 BMC Interior Virgin Oil Storage

Up to four (4) 55-gallon drums of hydraulic oil and motor oil are stored in Building 118, designated by location “D-1” on [Figure 2](#). These drums are stored on a spill pallet on the concrete slab floor in the southern portion of Building 118. The floor slab of Building 118 is flat with no discernable pitch in the vicinity of D-1.

In addition, spill response gear is stored in close proximity to D-1. No floor drains are noted within Building 118 in the vicinity of D-1.

The spill pallet, competent poured concrete floor slab (and lack of interior drainage features) of Building 118 in the vicinity of D-1 is considered a *Passive Secondary Containment* system.

Spill kits containing sorbent materials (granular absorbents, pads, booms, etc.) are maintained by BMC at the facility in sufficient quantities for use as *Active Secondary Containment*.

2.4.3 BMC Exterior Used Oil Storage

Up to four (4) 55-gallon drums of used motor oil/hydraulic oil are on a spill pallet stored in a locked enclosure immediately east of Building 118, designated by location “D-2” on [Figure 2](#). This enclosure is situated on a concrete pad and contains a base spill pallet. The concrete pad east of Building 118 is predominantly flat with a slight pitch towards the south. As stated, spill response gear is stored in within Building 118 and in close proximity to D-2. The drainage trough located south of D-2 leads to the on-Site WWTP.

The spill pallets, storage container, competent exterior poured concrete platform (and lack of uncontrolled drainage features) of Building 118 in the vicinity of D-2 is considered a *Passive Secondary Containment* system.

Spill kits containing sorbent materials (granular absorbents, pads, booms, etc.) are maintained by BMC at the facility in sufficient quantities for use as *Active Secondary Containment*.

2.4.4 Hydraulic Oil Pump Reservoirs

Two (2) separate 100-gallon and two (2) adjacent 115-gallon hydraulic oil reservoirs associated with BMC auxiliary equipment are located in the northern (P-1) and southern (P-2A/P-2B) portions of Building 134 (lower level) and in the east-central portion of Building 118 (P-3),

designated by locations P-1, P-2A/P-2B and P-3 on [Figure 2](#). The hydraulic oil reservoirs for P1 and P-2A/P-2B are located within two concrete containment structures that reside on the concrete floor slab of Building 134 (one containment structure for P-1 and one containment structure for P-2A/P-2B, respectively). There is no containment structure for P-3. Due to the nature of the hydraulic oil utilized in these auxiliary equipment, there is only minimal handling/transferring of the oils. Spill response gear is stored in nearby in Buildings 117 and 118 for use as needed at these locations. A floor drain is located northwest of P-1 which discharges to the WWTP. No drainage structures are noted in the vicinity of P-2A/P-2B or P-3.

The concrete containment structures housing P-1 and P-2A/P-2B within the lower level floor of Building 134 are considered *Passive Secondary Containment* systems. For P-3 the concrete floor and lack of floor drains in Building 118 are considered *Passive Secondary Containment*.

Spill kits containing sorbent materials (granular absorbents, pads, booms, etc.) are maintained by BMC at the facility in sufficient quantities for use as *Active Secondary Containment*.

2.4.5 Oil-Filled Electrical Equipment

Two (2) electrical transformers are located on the Barnhardt property and provide electrical service to their facility, designated by location T-1 and T-2 on [Figure 2](#). The electrical transformers are the property of WMECO, constructed as two separate aboveground units. T-1 is a 2,000 KVA transformer containing approximately 750 gallons of non-PCB transformer oil located north of Building 134. T-2 is a 500 KVA transformer containing approximately 250 gallons of non-PCB transformer oil located south of Building 134. Each transformer is contained within a locked steel enclosure set upon a concrete pad containing a “U” shaped concrete curbing along the southern, western and northern extents of the pads, further surrounded by asphalt. The transformer oil is utilized in the operation of the transformer and there is no handling/transferring of the transformer oil by Barnhardt personnel.

Any repairs or modifications to T-1/T-2 are performed by WMECO personnel. Spill response gear is stored in nearby in Buildings 117/118 and the unloading area for use as needed at T-1 and/or T-2.

There appeared to be some minor cracking/spalling to the U shaped concrete containment curbing associated with T-1, as observed in August 2016. OEG recommends that the integrity of these concrete containments be evaluated by appropriate BMC and/or WEMCO personnel and upgraded or repaired by appropriate personnel as necessary to maintain the desired function.

The U shaped concrete curbing surrounding T-1 and T-2 are considered *Passive Secondary Containment* systems.

Spill kits containing sorbent materials (granular absorbents, pads, booms, etc.) are maintained by BMC at the facility in sufficient quantities for use as *Active Secondary Containment*.

2.4.6 Vendor Off-Loading to Bulk ASTs

BMC's vendor bulk off-loading area is a concrete structure containing an approximate 1% slope (east to west) located between the elevated concrete pad for AST-1 through AST-4 and the footprint of Building 117, within the central portion of the Site (refer to [Figure 2](#)). The unloading area contains an approximate 10-inch asphalt berm at the eastern (high) end and a valve operated drainage trough at the western (low) end of the structure which discharges to the WWTP. This drain is normally closed during Barnhardt operations and the unloading area has the capacity to contain approximately 4,900 gallons. This retention capacity further provides for sufficient free board for precipitation in the dike.

As available, BMC personnel shall oversee vendor's bulk off-loading activities and shall ensure that the facility provides for general containment under SPCC Rule during bulk off-loading. Prior to conducting a bulk delivery, BMC shall notify the vendor(s) of the requested delivery, and

BMC shall confirm the type and volume of oil(s) to be delivered to each tank, and visually confirm that the tank gauges indicate sufficient room for the delivery.

The adequately sized concrete containment used for vendor bulk off-loading to AST-1 through AST-4 is considered a *Passive Secondary Containment* system.

Spill kits containing sorbent materials (granular absorbents, pads, booms, etc.) are maintained by BMC at the facility in sufficient quantities for use as *Active Secondary Containment*.

2.5 Countermeasures for Discharge Discovery, Response & Cleanup – 40 CFR

112.7(a)(3)(iv)

If a spill occurs, BMC employee efforts should be focused on: 1) attempting to cease the discharge by way of closing valves, turning off pumps, or isolating a line leak; and/or 2) employing containment/diversionary tactics through the use of spill kit items or similar materials to minimize migration of the oil and prohibit a release to navigable waters (by way of overland migration and/or stormwater conveyance systems, as applicable), until a qualified emergency response contractor arrives to address the source of the release. These defensive measures should be performed only by qualified personnel, familiar with this SPCC Plan and trained at a First Responder Awareness Level under the OSHA regulations (29 CFR Part 1910.120).

BMC personnel shall be trained on response to spills of less than 10 gallons at the facility and how to employ sorbent materials to contain and subsequently properly dispose of the oils released. See 2.7.2 [detailing 40 CFR 112.7(a)(5)] for procedures to follow in the event of a release.

For a release of 10 gallons of oil or greater, refer to the below for applicable Massachusetts reporting requirements to the MassDEP under the MCP.

Incidental Spills

An incidental spill has *all* of the following characteristics:

- The spill is less than 10 gallons;
- The spill can entirely be cleaned up within the capabilities of BMC personnel; and
- The spill or cleanup operation does not pose a safety risk.

The first person to detect an oil spill is responsible for immediately notifying the Spill Response Coordinator of the situation.

Incidental spills require internal notifications. Inform the Spill Response Coordinator of the spill situation, including location and quantity spilled, and any relevant or requested information that you know.

Only if safe to do so, trained personnel should stop an oil leak by such means as:

- Closing valve;
- Plugging opening;
- Righting knocked-over container; and
- Lifting dropped hose.

Only if safe to do so, trained personnel should contain an oil leak by such means as:

- Using spill kit materials and/or containment/diversionary tactics to stop movement of oil to the extent possible; and
- Using other available materials and equipment only if spill materials are not available.

Trained personnel should clean up the spilled material using absorbents and/or the spill kit provided in the vicinity. Dispose of all spill clean-up materials appropriately (i.e. in a properly labeled and secured 55-gallon drum). Personnel not involved in the spill response activities must be kept away from the spill area. If possible, cordon off the spill area to prevent unintended access.

Large Spills

If a spill is not an incidental spill, it is a large spill.

The initial notification requirements for a large spill are the same as for an incidental spill: immediately report the incident to the Spill Response Coordinator.

It is important to communicate the size and location of the spill to the Spill Response Coordinator so that it can be determined if it is a large spill or an incidental spill. If the spill requires response by an ambulance or the fire department, make sure to inform the Spill Response Coordinator. The Spill Response Coordinator will notify:

- Local Police and/or Fire Department, and ambulance services, if/as required;
- BMC's Emergency Response Contractor and Licensed Site Professional (LSP);
- Appropriate BMC Staff; and
- Appropriate regulatory agencies (refer to Section 2.7).

The Spill Response Coordinator will inform the necessary parties of the spill situation and of all relevant information available (refer to Section 2.7.1).

If/as appropriate, evacuate the area in accordance with established BMC procedures. In the event of a large spill (a release greater than 10 gallons), the BMC Spill Response Coordinator will request assistance from an emergency response contractor to provide spill containment, clean-up,

and disposal services. The current BMC contract for emergency services is provided in Section 2.7.

2.6 Methods of Disposal for Recovered Materials – 40 CFR 112.7(a)(3)(iv)

Residuals (i.e. oil, oil-contaminated soil, water and oil, sorbent materials, vegetation, etc.) from oil spill cleanup of a reportable release, constitute remediation waste under the MCP. Spill residuals are to be stored, managed, and disposed of in accordance with the guidelines set by federal, state and local ordinances. If the discharge is contained by facility personnel, the recovered materials will be stored in suitable drums.

The material shall then be disposed of at an appropriately licensed facility. If the discharge required the use of a remedial contractor, then the contractor shall arrange for the appropriate management and off-Site disposal of the recovered materials.

The MCP requires that the removal and disposal of remediation waste must be managed under a Bill-of-Lading (BOL). In addition, wastes should be evaluated to determine whether a uniform hazardous waste manifest is required due the presence of characteristic or listed hazardous wastes.

Uncontainerized remediation waste may be stored at the Site for up to 120 days, provided it is stored in a secure manner to prevent exposure to humans and the environment. The remediation waste should, where practicable, not be stockpiled or consolidated near sensitive human health receptors such a public or private water supply wells or sensitive environmental receptors such as wetlands, surface water bodies, or marine environments.

The remediation waste must be placed entirely on a base composed of an impermeable material, and shall be immediately covered with the same material or other suitable material so as to minimize the infiltration of precipitation, volatilization of contaminants, and erosion of the

stockpile. Any cover material used shall be properly secured and possess the necessary physical strength to resist tearing by the wind. Any failure of the materials or procedures used in employing the base layer or cover layer shall be immediately repaired, replaced, or re-secured so as to minimize precipitation infiltration, volatilization, and erosion/runoff of the remediation waste.

Oil spill cleanup debris shall be removed from the Site only in secured drums or canisters or in a vehicle which is covered. If oil spill debris is generated as a result of a release, it must be managed under a BOL or Hazardous Waste Manifest and removed from the Site within 90 (hazardous materials) to 120 days (BOL materials).

Oil spill cleanup debris shall be removed only to one of the following facilities: Massachusetts Landfills per MassDEP Policy No. COMM-97-001, asphalt batching facilities or other facilities, approved by the MassDEP to accept oil spill debris under MassDEP Policy WSC-94-400, or any out of state facility that will agree to take material and that is permitted/licensed to accept that material by the state in which it is located.

Within 30 days of off-Site transport, the owner/operator shall submit to MassDEP the waste documentation specifying date of removal and location of the receiving facility.

2.7 Emergency Contact List and Telephone Numbers – 40 CFR 112.7(a)(3)(vi)

Owner/Operator of Facility:	BMC - 247 Main Road, Colrain, MA 01340 Tel: (413) 624-3471 Boiler Room Ext. 3703
SPCC and Spill Response Coordinator: Primary Contact:	Mark Thibodeau Maintenance Manager Tel: (413) 624-3471 Ext. 3720 Tel: (413) 624-3232 (off hrs.)
Secondary Contact/Health Safety and Environmental Compliance Manager:	Sharon Ziemek Health, Safety & Environmental Compliance Manager Tel: (413) 624-3471 Ext. 3702 Cell: (413) 210-5979 (off hrs.)
Emergency Response Contractor:	Western Massachusetts Environmental 93 Wayside Avenue W Springfield, MA 01089 Tel: (413) 788-2622
LSP/Environmental Consultant:	Omni Environmental Group 6 Lancaster County Road Harvard, MA 01451 Tel: (978) 256-6766
Fire Department/Police Department/Ambulance	911
U.S. Coast Guard Disaster Response Command	(617) 223-8515
National Response Center (NRC)	(800) 424-8802
MassDEP (Emergency)	(888) 304-1133

2.7.1 Information to be given to Contacts – 40 CFR 112.7(a)(4)

In the event of a spill of oil at the BMC Colrain facility, the following information should be recorded by the person(s) observing the incident and related, as needed, to federal, state and local authorities:

1. Address/location and/or phone number of the facility;
2. Date and time of the discharge or discovery of the discharge;
3. An estimate of the total quantity of oil released;
4. Source of the discharge;
5. A description of all impacted media resulting from the discharge;
6. Cause of the discharge (if known);
7. Damages or injuries caused by the discharge;
8. Actions being taken to stop, remove and mitigate the effects of the discharge;
9. Whether evacuation may be required; and
10. Names of the individuals/organizations that have also been notified.

2.7.2 Procedures to Follow in the Event of a Discharge – 40 CFR 112.7(a)(5)

BMC Notification

In the event of a release of oil, the following procedures shall be taken by the person observing the incident: Notify the Primary SPCC/Spill Response Coordinator and/or Secondary SPCC/Spill Response Coordinator immediately in person or at the contact information presented above. Additional contact numbers are provided during off-hours.

If a release of oil is identified, the primary or secondary SPCC/Spill Response Coordinator will contact the designated response contractor to initiate cleanup activities, and will determine if the release fits the regulatory definition of a discharge, or a quantity of oil reaches a navigable waterway. The primary or secondary SPCC/Spill Response Coordinator, or an authorized designee thereof, will contact the appropriate authorities as described below.

Oil Spill Procedure

In the event of a spill of oil at the BMC Colrain facility, the following procedures shall be conducted:

1. Take prompt necessary measures to stop the release of oil, if it is safe to do so, by such actions as closing a valve, turning off a pump, righting an overturned container or isolating a leaking line or hose.
2. Immediately initiate the Contact Reporting Procedures listed in this Section.
3. Identify the type, source and location of the release, the approximate volume of oil released and area(s) impacted.
4. Evaluate the potential for ancillary hazards such as a fire or risk to employees or public safety concerns at or abutting the facility and notify the appropriate officials (local Fire Department, Police and/or emergency ambulance services).
5. BMC shall notify the Emergency Response Contractor if the release is not contained on-Site, and/or cannot be addressed by BMC's employees through the use of Active Secondary Containment Measures (i.e. through the use of Spill Kits).
6. Take prompt action to contain the release to the immediate vicinity of the leak Site, or to the Site property by way of diversionary tactics, temporary dams/berms and/or the use of sorbent materials. Such actions should only be performed by BMC personnel trained on response to spills of less than 10 gallons and how to employ sorbent materials to contain the oils released, and DOES NOT PRESENT ADDITIONAL RISK TO PERSONAL SAFETY.
 - a. Contain a release of oil through the use of booms, absorbents, or other suitable materials from spill kits to be maintained at the facility. The spill kits should only be used by individuals who are trained in their use. In addition, containment or diversionary structures can be constructed of available materials (earth, absorbents, gravel, sand bags, wooden materials, snow, ice, debris, etc.) which can divert oil to a recovery point or prevent oil from reaching a critical area.

- b. Once the spill is contained and stabilized, shovels, brooms and similar tools can be utilized to collect the contaminated materials for placement in drums. All drums shall be properly labeled and securely staged pending appropriate off-Site management.

Post-Cleanup Procedures

At the conclusion of any cleanup operation, it shall be the responsibility of the primary and/or secondary SPCC/Spill Response Coordinators (or there authorized designee) to ensure that wastes generated during the incident have been collected and properly disposed of in accordance with applicable regulations, emergency equipment has been cleaned and spill response supplies have been restocked for future use.

2.7.3 MassDEP Notification and Reporting Requirements

Any spill or discharge of oil onto the lands or waters of Massachusetts, at or above the Massachusetts RQ, must be reported to the MassDEP. The reportable quantity for petroleum oils (i.e. diesel fuel, #2 fuel oil, hydraulic oil, waste oil, etc.) is 10 gallons. In addition, the following conditions must also be reported to the MassDEP:

- a sudden, continuous or intermittent release to the environment of any quantity of oil or waste oil that results in the appearance of a sheen on surface water;
- any release of oil that is indirectly discharged to the environment by means of discharge to a stormwater drainage system;
- any release of oil that is indirectly discharged into the environment by means of discharge to a sanitary sewerage system.

This notification must be made within two (2) hours of detection. Exceptions to reporting requirements that may apply to this facility are in the case of a release of oil that is completely contained within a structure engineered to fully contain the release.

The primary and/or secondary SPCC/Spill Response Coordinators (or their authorized designee, environmental consultant or LSP) are responsible for determining whether notification to the MassDEP is required, and for making the appropriate notification.

Once it has been determined that notification is required, verbal notification can be made to the following:

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
Western Regional Office
436 Dwight Street
Springfield, Massachusetts 01103
(413) 784-1100 (business hours)
(888) 304-1133 (24 hours per day/7 days per week)

The notification generally must include the following:

1. The location and address where the release occurred;
2. The time and date when the release occurred;
3. The time and date when BMC obtained knowledge of the release;
4. The time and date when oral notification was made to the MassDEP;
5. The notification criteria met;
6. The names and amounts of oil and/or hazardous material released;
7. The names and mailing addresses of the owners of all properties impacted by the release;
8. The name and address of the person providing the notification of the release;
9. The affiliation of the person(s) notifying to the Site of the release; and
10. Such other information as the MassDEP may request.

2.7.4 Federal Notification and Reporting Requirements

Any spill of oil causing a sheen or visible layer of oil on a navigable waterway must be reported verbally to both the USEPA and the US Coast Guard. The primary and/or secondary SPCC/Spill Response Coordinator for BMC is responsible for making this notification.

A telephone call to the National Response Center (800) 424-8802 [24-hour hotline] satisfies the requirement for notifying both the USEPA and the US Coast Guard. In addition, a written report must be prepared any time one of the following occurs:

1. Any one oil spill greater than 1,000 gallons onto a navigable waterway; and
2. Any two oil spills causing a visible sheen or layer on a navigable waterway in a twelve-month period.

If it is determined that a written report must be prepared, the following information must be reported to the Regional Administrator of the USEPA within 60 days of the event:

1. Name of the facility;
2. Name(s) of owner or operator of the facility;
3. Location of the facility;
4. Date of initial facility operation;
5. Maximum storage or handling capacity of the facility and normal daily throughput;
6. Description of facility, including maps, flow diagrams, and topographical maps;
7. A complete copy of this SPCC Plan, with any amendments;
8. The cause(s) of the spill, including a failure analysis of the system in which the failure occurred;
9. The nature and quantity of the spilled material;
10. The corrective action and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements;
11. Additional preventive measures taken or contemplated to minimize the possibility of a

recurrence; and

12. Such other information as the Regional Administrator may reasonably require, pertinent to the SPCC Plan or spill event.

This information must be sent to the following address:

Regional Administrator - USEPA Region 1
5 Post Office Square - Suite 100
Boston, MA 02109-3912

2.8 Direction, Rate of Flow and Total Quantity of Potential Discharge – 40 CFR

112.7(b)

2.8.1 Bulk Aboveground Storage Tanks

The most likely release scenario related to AST-1 through AST-5 would be during a delivery of oil to one or more of the AST systems from the petroleum unloading area. In the event of a leaking or disconnected hose, or leak or rupture of the tank truck, spilled oil could flow onto the ground within the petroleum unloading area. The unloading area is a concrete structure containing an approximate 1% slope (east to west) located between the elevated concrete pad for AST-1 through AST-4 and the footprint of Building 117, within the central portion of the Site. The unloading area contains an approximate 10-inch asphalt berm at the eastern (high) end and a valve operated grate-drain at the western (low) end of the structure which discharges to the WWTP. This drain is normally closed during Barnhardt operations and the unloading area has the capacity to contain approximately 4,900 gallons.

The quantity of discharge is variable depending on the size of the rupture and the time elapsed prior to detection. Since the driver of the tank truck must never leave the unloading area during delivery, the duration of the spill would be equal to the transport driver's reaction time to stop the release. Estimating and assuming the reaction time to be 30 seconds and the maximum flow rate

to be 150 gallons per minute (GPM) [2.5 gallons per second (GPS)], the maximum volume of the spill is estimated at 75 gallons; 2.5 gallons for each second of discharge. In the event of this release scenario, it is likely that the release would be contained within the petroleum unloading area.

A “worst case” scenario could involve a complete discharge of oil from the largest compartment on a trailer truck (estimated at 4,500 gallons for bulk deliveries) due to a defective valve or other circumstance that prevented the cessation of the discharge. In the event of a “worst-case” release, petroleum would overflow the containment of the petroleum unloading area (~4,900 gallons) in an easterly direction and further migrate: 1) easterly in the direction of CV-1 and/or the stormwater structures northeast of the unloading area; and/or 2) southwesterly in the direction of CV-2. Refer to [Figure 2](#) for a depiction of the petroleum unloading area, aforementioned drainage features and anticipated direction(s) of sheet flow across the facility.

**Comparison of Potential Conditions for Release of Oil
(AST-1 through AST-4 [20,000 gal.] and AST-5 [500-gal.]**

<i>Type of Release</i>	<i>Estimated Rate of Release (GPM)</i>	<i>Estimated Quantity of Release (Gal)</i>
Transfer Spill	~150	<75
Failure of Trailer Truck Compartment	NA	4,500

Under typical conditions and in consideration of the double-walled ASTs, facility design, salient containment and drainage controls and SPCC measures discussed herein, a release of oil from one of these bulk ASTs is not anticipated to impact navigable waters.

2.8.2 Interior 55-gallon Storage

For the 55-gallon drums stored at D-1, one of two most likely release scenarios would be during the transfer of oil from the drums. The transfer of oils from D-1 to facility machinery is typically performed with 5-gallon cans and manual hand pumps/hoses. Transfer operations are performed on the spill pallet. A typical release of oil from D-1 would be limited to the volume of a can being filled or the contents of the fill hose in the transfer operation (~5 gallons) and would be retained in the spill pallet.

Another release scenario from the drums at D-1 would be a slow leak from failure of the drum. This type of release may release oil at a rate of 3 gallons a day (assuming a rate of 0.1 gallons per hour). A major malfunction of a valve may release oil at a faster rate which may result in a release of approximately 2 to 5 gallons per hour. A “worst case” scenario would involve a complete discharge of oil a 55-gallon drum. This would most likely occur due to an act of vandalism, accidental damage or corrosion of the unit, leading to a structural failure. In this scenario, it’s possible that the entire contents (55 gallons) would be released.

Comparison of Potential Conditions for Release of Hydraulic/Motor Oils (Up to four 55-Gallon Drums)
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<i>Type of Release</i>	<i>Estimated Rate of Release (GPM)</i>	<i>Estimated Quantity of Release (Gal)</i>
Vandalism	Immediate	55
Valve Failure	0.1 to 5	<2.5 to 55
Dispensing Spill	5	5

Due to the frequent presence of BMC in this area, a release of oil under these scenarios would likely be detected within 48 hours or less. In any case, the released oil (ranging from 2.4 to 55 gallons) would be retained in the spill pallet. Under typical conditions and in consideration of facility design, a release of oil from D-1 is not anticipated to impact navigable waters.

2.8.3 Exterior 55-gallon Storage

For the 55-gallon drums of used oil at D-2, one of two most likely release scenarios would be during the transfer of waste oil drums from the D-2 enclosure to waste oil contractor vehicle. The 55-gallon drums of waste oil generated through operations at the Barnhardt facility are transported off-Site by a waste oil contractor for reuse. A typical release of waste oil would involve spilling the contents of the drum during a loading operation. The loading of the drums is done using a lift gate. The following spill prevention measures have been developed for this loading operation. The drum lids are verified to be secure and the drums free of leaks. During transfer operations, wheel chocks are placed under the truck's wheels to prevent movement of the truck during loading operations. The waste oil contractor attends the truck at all times during the loading operation and spill response gear is stored (Building 118) in close proximity to the loading area for use in diverting and adsorbing any oil and/or oily liquids. Oil released during the transfer operation is anticipated to be retained within the immediate area of the spill; however, the oil may flow in a southerly direction during a precipitation event.

A typical release of used motor oil would be limited to the volume of a can being poured into the drum. This volume would be approximately 5 gallons that would be retained on the spill pallet of D-2 or the surrounding concrete slab. Oil released to the concrete pad is anticipated to be retained in the area of the spill; however, the oil may flow in a southerly direction during a precipitation event.

Another release scenario from the drums at D-2 would be a slow leak from failure of the drum. This type of release may release oil at a rate of 3 gallons a day (assuming a rate of 0.1 gallons per hour). A major malfunction of a valve may release oil at a faster rate which may result in a release of approximately 2 to 5 gallons per hour. A "worst case" scenario would involve a complete discharge of oil a 55-gallon drum. This would most likely occur due to an act of vandalism, accidental damage or a corrosion of the unit, leading to a structural failure. In this scenario, it's possible that the entire contents (55 gallons) would be released. In the case of a

release of oil due to transfer to D-2 or from a slow leak, the released oil (ranging from 2.4 to 55 gallons) would be retained in the spill pallet of D-2.

A “worst case” scenario could involve the discharge of oil from a 55-gallon drum due to an accident during loading activities from D-2 for off-Site reclamation of the used oils. In the event of a “worst-case” release, used oils would likely be retained in the immediate area of the release, but during a precipitation event would flow into the drainage trough south of D-2 which is connected to the on-Site WWTP. Refer to [Figure 2](#) for a depiction of the D-2 area, aforementioned drainage feature and anticipated direction(s) of sheet flow across the facility.

Comparison of Potential Conditions for Release of Used Hydraulic/Motor Oils (Up to four 55-Gallon Drums)

<i>Type of Release</i>	<i>Estimated Rate of Release (GPM)</i>	<i>Estimated Quantity of Release (Gal)</i>
Vandalism	Immediate	55
Discharge Valve Failure	0.1 to 5	<2.5 to 55
Transfer Spill	5	5
Removal Spill	Immediate	55

Due to the frequent presence of Barnhardt personnel in this area, it is likely that a release of oil under these scenarios would be detected within 48 hours or less. Under typical conditions and in consideration of facility design, a release of oil from D-2 is not anticipated to have the potential to impact navigable waters.

2.8.4 Hydraulic Oil Pump Reservoirs

For P-1, P-2A/P-2B and P-3, one release scenario would be during the transfer of hydraulic oil between a reservoir and a 5-gallon container. The transfer of oils to/from these hydraulic oil reservoirs is typically performed with 5-gallon cans and manual hand pumps/hoses. Transfer

operations are performed within the concrete containment structure in which the reservoirs are located. A typical release of oil from these hydraulic oil reservoirs would be limited to the volume of a can and/or the contents of the fill hose in the transfer operation. In this case the volume would be approximately 5 gallons that would be retained in the concrete containment structure. If hydraulic oil was released outside of the concrete containment structure it would be retained on the concrete floor slab of Building 134 (P-1 and P-2A/P-2B) or Building 118 (P-3).

Another release scenario from these hydraulic oil reservoirs would be a slow leak from a faulty gasket or fitting on the unit. This type of leak may release oil at a rate of 3 gallons a day (assuming a rate of 0.1 gallons per hour). A major malfunction of a valve may release oil at a faster rate which may result in a release of approximately 2 to 5 gallons per hour. A “worst case” scenario would involve a complete discharge of hydraulic oil from the reservoir. This would most likely occur due to an act of vandalism, accidental damage or corrosion of the unit, leading to a structural failure. In this scenario, it’s possible that the entire contents (100 to 115 gallons) would be released.

Comparison of Potential Conditions for Release of Hydraulic Oil
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<i>Type of Release</i>	<i>Estimated Rate of Release (gallons per hour)</i>	<i>Estimated Quantity of Release (Gal)</i>
Vandalism	Immediate	100 to 115
Discharge Valve Failure	0.1 to 5	<2.5 to 115
Transfer Spill	5	5

Due to the frequent presence of BMC in these areas, it is likely that a release of oil under these scenarios would be detected within 48 hours or less. In any case, the released oil (ranging from 2.4 to 115 gallons) would be retained in the concrete containment structure of the respective reservoir(s). Under typical conditions and in consideration of facility design, a release of oil

from one of these hydraulic oil reservoirs is not anticipated to have the potential to impact navigable waters.

2.8.5 Electrical Transformers

A release of transformer oil from T-1 would initially be retained within the concrete curbing associated with the pad of T-1. However, a larger could overflow the concrete pad area and migrate in the direction of CB-1 and/or down the grassy sloped embankment to the west. CB-1 contains a discharge valve that can be shut in the event of a release from T-1, to prevent a release of oil from impacting the Tailrace.

A release of transformer oil from T-2 would initially be retained within the concrete curbing associated with the pad of T-2; however, a larger release would be anticipated to overflow the concrete pad area and migrate: 1) southeasterly in the direction of Main Road (Route 112); 2) westerly in the direction of the Tailrace Brook; and/or 3) northwesterly down the paved access road of the facility. SMH-6 is located north of T-2 and discharges to the WWTP.

The most likely release scenario from the transformers would be a slow leak from a faulty valve or flange. This type of release may release oil at a rate of 3 gallons a day (assuming a rate of 0.1 gallons per hour). Due to the frequent presence of BMC personnel in this area, it is likely that a release of oil under these scenarios would be detected within 48 hours (~5 gallons released).

A “worst case” scenario would involve a complete discharge of oil from one of the transformers. This would most likely occur due to an act of vandalism, accidental breakage or a buildup of heat and vapors within the unit, leading to a structural failure. In this scenario, it’s possible that the entire contents of T-1 (750 gallons) or T-2 (250 gallons) would be released.

<p align="center">Comparison of Potential Conditions for Release of Transformer Oil (T-1, 750 gallons and T-2, 250 gallons)</p>
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<i>Type of Release</i>	<i>Estimated Rate of Release (gallons per hour)</i>	<i>Estimated Quantity of Release (Gal)</i>
Catastrophic (major)	Immediate	250 (T-2) to 750 (T-1)
Discharge Valve Failure (major)	2-5	48 - 120
Discharge Valve Failure (weeping)	0-0.1	<5

Due to the frequent presence of BMC at the Site, it is likely that a release of oil under these scenarios would be detected within 48 hours or less. Under typical conditions and in consideration of facility design, a release of oil from one of these transformers is anticipated to be addressed prior to impacting navigable waters.

2.8.6 Spill Potential

The following table summarizes the types and volumes of oil located at the Barnhardt facility and the potential types and volumes of oil spills.

Source	Type of Failure	Volume (gallons)	Max. Rate (gal/hr)	Direction of Flow	Containment
Oil <u>Transfer</u> Activities – Barnhardt Manufacturing Co.					
AST-1	Transfer Spill	75 – 4,500	(1)	(2)	(8)
AST-2	Transfer Spill	75 – 4,500	(1)	(2)	(8)
AST-3	Transfer Spill	75 – 4,500	(1)	(2)	(8)
AST-4	Transfer Spill	75 – 4,500	(1)	(2)	(8)
AST-5	Transfer Spill	75 – 4,500	(1)	(2)	(8)
D-1	Transfer Spill	5 – 55	(1)	(3)	(9)
D-2	Transfer Spill	5 – 55	(1)	(4)	(9)
P-1/P-3	Transfer Spill	5 – 100	(1)	(5)	(10)
P-2A/P-2B	Transfer Spill	5 – 115	(1)	(5)	(10)
T-1	Transfer Spill	750	(1)	(6)	(11)
T-2	Transfer Spill	250	(1)	(7)	(11)

Source	Type of Failure	Volume (gallons)	Max. Rate (gal/hr)	Direction of Flow	Containment
Oil <u>Storage</u> Activities – Barnhardt Manufacturing Co.					
AST-1	Compartment Failure	4,500	(1)	(2)	(8)
AST-2	Compartment Failure	4,500	(1)	(2)	(8)

Source	Type of Failure	Volume (gallons)	Max. Rate (gal/hr)	Direction of Flow	Containment
AST-3	Compartment Failure	4,500	(1)	(2)	(8)
AST-4	Compartment Failure	4,500	(1)	(2)	(8)
AST-5	Compartment Failure	4,500	(1)	(2)	(8)
D-1	Failure of Drum	55	(1)	(3)	(9)
D-2	Failure of Drum	55	(1)	(4)	(9)
P-1/P-3	Failure of Pump Reservoir	100	(1)	(5)	(10)
P-2A/P-2B	Failure of Pump Reservoir	115	(1)	(5)	(10)
T-1	Failure of Unit	750	(1)	(6)	(11)
T-2	Failure of Unit	250	(1)	(7)	(11)

Notes:

1. The rate of discharge is dependent on: 1) the size of the failure; and 2) the location of the failure on the container or tank. For tank/container failure, rate is assumed to equal entire contents of the largest compartment in one hour.
2. The petroleum would be retained within the concrete containment of the unloading area (~4,900 gallons); however, a release in excess of the containment capacity would be anticipated to migrate beyond: 1) east/southeasterly toward the catch basins/sewer manholes and stormwater containment valve CV-1; and/or 2) southwesterly toward stormwater containment valve CV-2.

Precipitation events and/or a delay in response may exacerbate the migration of oils toward these structures and subsequent surface waters.

3. The petroleum is predicted to be retained within the spill pallet. A larger release or accident beyond the immediate area of the spill pallet would be expected to be retained on the concrete floor within Building 118.
4. The used oil is predicted to be retained within the spill pallet. A larger release or accident beyond the limit of the spill pallet would be expected to be retained on the concrete slab immediately east of Building 118.
5. The petroleum is predicated to be retained within the concrete containment in which P-1, P-2A/P-2B or P-3 are located. A larger release or accident beyond the limit of one of these concrete containment structures would be expected to be retained on the concrete slab floor within Building 134 or Building 118. If both hydraulic reservoirs of P-2A/P-2B failed simultaneously, the released oils would override the existing containment structure and be retained on the concrete floor slab within Building 134. If hydraulic oils were released from the facility process piping with P-1, the oils would be retained on the concrete floor slab within Building 134. A release from P-3 would be retained on the concrete floor slab in Building 118.
6. The petroleum would be anticipated to be initially retained within the concrete curbing associated with the pad of T-1; however, a larger release is anticipated to flow beyond: 1) southerly in the direction of CB-1; and/or 2) southwesterly down the grassed slope.
7. The petroleum would be anticipated to be initially retained within the concrete curbing associated with the pad of T-2; however, a larger release is anticipated to flow beyond the concrete pad area and migrate: 1) southeasterly in the direction of Main Road (Route 112); 2) westerly in the direction of the Tailrace; and/or northwesterly down the access of the facility.
8. Passive Secondary Containment is considered to be: 1) the double-walled construction and tank monitoring systems of AST-1 through AST-5; 2) the containment capacity of the unloading area. Active Secondary Containment is considered to be the closure of the valves to CV-1/CV-2 and the drainage troughs, use of drain mats and the facility Spill Kits.
9. Passive Secondary Containment is considered to be: 1) the spill pallets associated with D-1 and D-2 areas. Active Secondary Containment is considered to be the facility Spill Kits.
10. Passive Secondary Containment is considered to be the concrete containment structure associated with P-1 and P-2A/P-2B. Active Secondary Containment is considered to be the facility Spill Kits.
11. Passive Secondary Containment of the oil-filled electrical equipment is considered to be the U shaped curbing around the units. Active Secondary Containment is considered to be the facility Spill Kits.

**2.9 Prevention Systems: Containment and Diversionary Structures and Equipment
Utilized to Prevent a Discharge from Reaching Navigable Waters – 40 CFR 112.7(c)**

At a minimum, one or more of the following means and methods (or an equivalent) have been evaluated for the containment and/or diversion of a potential release of oil from the facility:

- Dikes, berms, or retaining structures sufficiently impervious to contain oil;
- Curbing;
- Oil water separators, culverts, gutters or other drainage systems;
- Weirs, booms or other barriers;
- Spill diversion structures/retention ponds; and/or
- Spill kits and sorbent materials.

2.9.1 Spill Kits

Spill Kits of cleanup equipment for oil shall be maintained at the facility and are designated for review of materials during monthly Site inspections by BMC personnel. These spill kits should include the following items or their equivalents in volumes appropriate for the location in which it is to be stored for use:

- Rolls, booms and pads of absorbent material;
- Granular absorbent materials;
- Drain mat blockers;
- Caution Tape;
- 55-gallon drum containers;
- Shovels, brooms, boots and gloves.

BMC personnel are responsible for checking the spill kits for completeness during scheduled inspections, and shall be restocked following each use. BMC has the responsibility of

maintaining an adequate supply of spill response materials. Additional items may be added to the spill kits as deemed necessary. The spill kits should only be used by individuals who are trained in their use.

In addition to this equipment, containment or diversionary structures can be constructed of available materials (earth, absorbents, gravel, sand bags, wooden materials, snow, ice, debris, etc.) which can divert oil to a recovery point or prevent oil from reaching a critical area.

2.9.2 BMC Facility

For BMC's Colrain facility, a combination of *Passive Secondary Containment* by way of the double-walled ASTs and aforementioned containment designs and/or retaining structures and *Active Secondary Containment* by way of spill kit/sorbent materials present at the facility has been put in place to manage a potential release of oil from this location.

2.9.3 Practicality of 40 CFR 112.7(c) – 40 CFR 112.7(d)

The above-noted measures are considered practical for BMC and shall be implemented as part of the SPCC Plan.

2.10 Inspections, Tests and Records – 40 CFR 112.7(e)

Barnhardt personnel are typically present at the Site during all business hours. We anticipate that Barnhardt personnel would observe signs of equipment deterioration, potential failures and releases of oil during the normal business operations and through the course of monthly inspections at the Site. BMC indicates that the boiler operators are on Site 24 hours per day/7 days a week and during the weekends when the facility is not running, the boiler operators conduct Site inspection walks around the facility every few hours.

At a minimum, the employees of BMC whom are responsible for the handling of oils shall be trained to observe the ASTs, valves, piping and related appurtenances for potential problems

and/or signs of leakage, on a (minimum) monthly basis. If a problem is encountered, the employee shall inform appropriate BMC staff of the observation(s) made, whom in turn, will undertake the appropriate corrective action(s). Routine Inspection Forms are presented in [Appendix B](#). During the inspection, Barnhardt will observe the following:

- Condition and evidence of oil spills from the Site bulk ASTs;
- Conditions and evidence of oil spills from AST ancillary piping;
- Condition and evidence of oil spills from the off-loading area;
- Condition and evidence of oil spills from stored 55-gallon drum(s) at D-1 and D-2;
- Condition and evidence of spills from the Site transformers T-1 and T-2;
- Condition and evidence of spills from the hydraulic oil reservoirs at P-1, P-2A/P-2B and P-3;
- Availability and appropriate quantities of spill response equipment;
- Adequate security and lighting; and
- Actions needed to correct potential issues.

All ASTs, valves, piping, related appurtenances, catch basins, spill controls, and emergency response materials/equipment shall be inspected monthly by BMC employees. Each inspection shall be recorded, dated, signed and filed in an inspection binder. All items requiring action or consideration shall be noted on these forms and systematically “checked off” upon completion or correction. Such forms shall be retained for three (3) years, as part of the SPCC Plan maintained at the Main Office.

Federal considerations for integrity testing of ASTs are covered under USEPA Code 40 CFR Part 112.8(c)(6), which require an owner/operator of a facility to: 1) determine, in accordance with industry standards [note that Industry Standards for tanks and containers includes American Petroleum Institute (API) 653 and Steel Tank Institute (STI) (SP001)] the appropriate

qualifications for personnel performing the tests and inspections, the frequency and type of testing and inspections, which take in to account container size, configuration and design (i.e. shop-built, field-erected, skid-mounted, elevated, equipped with a liner, double-walled, or partially buried); 2) test each AST for integrity on regular scheduled basis and following material repairs/alterations; and 3) to frequently inspect exterior of tanks/foundations for deterioration and oil or water accumulation in dike(s) and maintain these inspection/testing records at the facility.

Examples of inspections include: visual inspections, hydrostatic, radiographic, ultrasonic, acoustic emissions testing, or other systems of non-destructive testing. Formal external inspections conducted by an authorized inspector shall be conducted every 5 years or $RCA/4N$ years [this is an equation in API 653 allowing for the computation of a tank-specific inspection frequency].

Alternatively to the inspection schedules provided under Industry Standards of STI/API, an owner/operator may employ a Risk Based Inspection (RBI) under STI or API, which combines Site-specific tank construction/spill prevention measures/spill impact likelihood into consideration when formulating a schedule for interior inspections (i.e. the formulation of a Risk Ranking Matrix).

An RBI would need to be prepared by a qualified inspector/engineer/knowledgeable and experienced in tank installations/foundations and corrosion, and familiar with RBI preparations. Furthermore, an RBI must be reviewed every 10 years to determine if it remains valid to the facility. An RBI may increase or decrease the frequency of internal inspection, depending on the findings.

An RBI has not been employed by BMC as part of this SPCC Plan. If one is implemented in the future, it shall be made part of an SPCC Amendment. As part of this SPCC Plan, it is recommended that a schedule for integrity testing of the bulk ASTs be evaluated and

implemented in accordance with the applicable industry standard(s) and by qualified personnel. BMC's Colrain facility does not contain underground product piping associated with the ASTs referenced in this SPCC Plan.

Vegetation shall not be allowed to grow in oil containment areas. Similarly, vegetative debris (if present, as accumulated) shall be promptly removed from oil containment areas.

As part of this SPCC Plan, it is recommended that each AST and associated product piping be appropriately marked for content with an NFPA sticker, or equivalent.

BMC's bulk ASTs AST-1 through AST-4 are greater than 10,000 gallons, therefore, the tanks have been registered with the MassDEP and Annual AST Inspections, under MGL c. 148, 502 CMR 5.00 and 527 CMR 9.00, are performed and submitted to the Department of Fire Services (DFS) for these ASTs. The annual visual inspections performed on AST-1 through AST-4 and submitted to DFS shall be retained as part of this SPCC Plan. In addition, the tanks are permitted with the local fire department.

If a source/potential source of leak is identified on an oil-filled container at the Site, the following actions will be taken in accordance with 527 CMR 9.07(h). If testing or observation has confirmed that the source of the leak is piping for a particular oil-filled container, the container will be taken out of service immediately, and the piping will be repaired or replaced to appropriate standards. If testing or observation has confirmed that the source of the leak is a particular oil-filled container, the container will be emptied of all its product within 24 hours, and the tank will be repaired or replaced to appropriate standards.

As previously discussed, Barnhardt normally keeps the discharge valve of the drainage grate in the unloading area fully closed. In accordance with 40 CFR part 112.8(2), prior to discharging uncontaminated water from the drainage structure associated with the unloading area, Barnhardt

must: 1) inspect the retained water to ensure that its presence will not cause a discharge of oil to navigable waters via the WWTP; and 2) open the valve and reseal it closed following drainage under the supervision of Barnhardt personnel.

As previously discussed, Barnhardt maintains two (2) stormwater control valves CV-1 and CV-2 that can be closed and drain mat blockers that can be placed over catch basins to minimize the potential for a release of oil beyond diked areas of the facility from impacting navigable waters. If closed, BMC will inspect retained water at CV-1 and/or CV-2 prior to reopening the valves to ensure that its presence will not cause a discharge of oil to navigable waters.

Barnhardt personnel will complete the inspection checklists in [Appendix B](#) during each monthly SPCC related inspection. Barnhardt will retain the inspection records for three (3) years, as part of the SPCC Plan maintained at Building 134.

2.11 Personnel, Training for Discharge Prevention Procedures – 40 CFR 112.7(f)

BMC is responsible for properly training the salient employees in the operation and maintenance of equipment to prevent a release of oil under this SPCC Plan. Such training shall be provided to ensure BMC employees can properly identify the release and report the nature of the release to the Spill Response Coordinator in all cases.

If the spill is an Incidental Spill as defined in Section 2.5, the BMC employees may perform response actions to stop, contain, and clean up the spill if it is safe to do so. If the spill is a Large Spill as defined in Section 2.5, BMC employees may only perform response actions to stop and/or contain the spill, if it is safe to do so. An outside emergency response contractor will be contacted by the BMC Spill Coordinator to perform spill cleanup operations.

BMC will provide First Responder Awareness Level Training to personnel that could potentially contact oils (i.e. #2 fuel oil, ULS #2 diesel, hydraulic oils and/or diesel fuel) in the operation and

maintenance of equipment to prevent discharges, discharge procedure protocols, applicable pollution control laws, and provisions of this SPCC Plan, general facility operations and appropriate notification procedures.

In addition, as part of First Responder Awareness Level Training, BMC will hold spill prevention briefings for appropriate individuals at least once annually, to review spill prevention practices and to update personnel on recently implemented procedures. Spill briefings shall highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures. A record of all personnel training (including sign-in sheets and topics covered) shall be maintained by BMC for a minimum of three (3) years, as part of the SPCC Plan maintained at the Main Office.

Health and Safety

BMC operating procedures do not authorize employees to conduct emergency response operations as defined in OSHA 29 CFR 1910.120. Incidental Spills are not considered to be emergency response operations. Incidental Spills are considered by OSHA at 29 CFR 1910.120 to be releases that can be “absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel. BMC considers spills of oil of less than 10 gallons to be incidental spills.

BMC operating procedures direct employees observing an actual or potential oil release, regardless of size, to make appropriate internal notifications and to take steps to stop and contain the spill, if it is safe to do so.

Outside contractors will be summoned to conduct the cleanup for a large spill. However, in incidental spill situations, BMC employees may take actions to stop, contain, and clean up the spill, if it is safe to do so.

Only properly trained, hazardous materials responders may initiate response actions to a release of oil. BMC employees that could potentially contact petroleum hydrocarbons are provided First Responder Awareness Level Training. BMC personnel are qualified to, at minimum, identify a release and to generally perform defensive actions in response to a release of oil. These defensive actions generally include containing the release from a safe distance and preventing exposures (human or environmental) to the released oils.

2.12 Security Measures – 40 CFR 112.7(g)

BMC has employed, the following security measures at the facilities:

- Fencing – While select areas of the Colrain facility contain fencing, the locations of oil storage discussed herein do not specifically or solely rely upon fencing for security.
 - The bulk ASTs are located within the central portion of the Site and less likely to be subject to potential vandalism.
- Containment Valves – There are several discharge valves associated with sheet flow across the facility, stormwater control and drainage features at the facility. Each bulk AST is equipped with a gate valve and the associated supply piping further contains ball valves to select between fuel oil supplies.
- Starter Controls – during off-hours, access to the starter controls for fuel transfer pump(s) at the facility are controlled by being locked in the OFF position and power is shut off to the transfer pumps.
- Cap or Blank Flange Loading/Off-Loading Connections – The AST loading/off-loading connections are securely capped and locked when not in use.
- Lighting to assist in the Discovery of a Discharge or Vandalism - The exterior of the facility is illuminated during dark hours by lighting. Furthermore, access to interior of the facility buildings can be restricted by locked entries. These factors are considered adequate such that a release could reasonably be discovered and that vandalism is discouraged at the facility.

2.13 Tank Truck Loading/Off-Loading Area Containment – 40 CFR 112.7(h)

The bulk off-loading area is a concrete structure containing an approximate 1% slope, containing an approximate 10-inch asphalt berm at the eastern (high) end and a valve operated drainage trough at the western (low) end of the structure which discharges to the WWTP. This drain is normally closed during Barnhardt operations and the unloading area has the capacity to contain approximately 4,900 gallons.

This retention capacity further provides for sufficient free board for precipitation in the dike. The adequately sized concrete containment used for vendor bulk off-loading to AST-1 through AST-4 is considered a *Passive Secondary Containment* system. Current design further provides for *General Secondary Containment* required under SPCC Rule for vendor(s) bulk off-loading.

As available, BMC personnel shall oversee vendor's bulk off-loading activities and shall ensure that the facility provides for general containment under SPCC Rule during bulk off-loading. Prior to conducting a bulk delivery, BMC shall notify the vendor(s) of the requested delivery, and BMC shall confirm the type and volume of oil(s) to be delivered to each tank, and visually confirm that the tank gauges indicate sufficient room for the delivery.

2.14 Field Constructed ASTs – 40 CFR 112.7(i)

The ASTs at the BMC Colrain facility are not of a field-constructed design.

2.15 Conformance with other Applicable Requirements – 40 CFR 112.7(j)

This SPCC Plan is designed to achieve compliance with Federal Regulation 40 CFR Part 112, and the MCP (310 CMR 40.0000).

3.0 SUBPART B - CONSIDERATIONS UNDER 40 CFR 112.8

3.1 General Requirements - 40 CFR 112.8(a)

BMC shall operate in compliance with the requirements of 40 CFR Part 112.7, as outlined above under Section 2.0 of this SPCC Plan, and the specific discharge prevention and containment procedures listed in 40 CFR Part 112.8, as provided below.

3.2 Facility Drainage - 40 CFR 112.8(b)(1) and (2) - Diked Areas

Drainage from diked areas is discussed under Section 2.4 – 40 CFR Part 112.7(a)(3)(iii).

3.3 Facility Drainage - 40 CFR 112.8(b)(3) and (4) - Un-Diked Areas

Above grade piping at the facility is located in areas such that a release from piping would be anticipated to be contained within the facility and could be identified and adequately assessed and addressed prior to impacting navigable waters.

The area where bulk deliveries are made to AST-5 and waste oils are collected from D-2 is located on the exterior concrete platform between Building 117 and Building 118. Sheet flow across the area is anticipated to be southerly. Sheet flow will discharge to the nearby drainage trough that ultimately discharges to the Site WWTP.

As previously discussed, Barnhardt maintains two (2) stormwater control valves CV-1 and CV-2 that can be closed and drain mat blockers that can be placed over catch basins to minimize the potential for a release of oil beyond diked areas of the facility from impacting navigable waters. If closed, BMC will inspect retained water at CV-1 and/or CV-2 prior to reopening the valves to ensure that its presence will not cause a discharge of oil to navigable waters. These features are intended to control a spill in the un-diked/non-containment areas of the facility.

Sheet flow across the facility is provided on [Figure 2](#). If a release of oil migrates beyond the containment areas of the facility, BMC's efforts should focus on ensuring that stormwater control valves are shut, drainage lines are closed, and stormwater catch basins protected to minimize the potential for the released oils to impacted adjacent surface water bodies/navigable waters.

3.4 Bulk Storage Containers - 40 CFR 112.8(c)(1)

BMC maintains the ASTs referenced under this SPCC Plan in a manner that allows employees to readily identify any potential issues. The above grade oil storage containers are readily visible and located in areas where employees work or frequently travel and identify a potential leak. The ASTs at the facility are inspected monthly. Oil storage at BMC's Colrain facility are designed and constructed using sound engineering practices, thereby reducing the potential for oil spills.

Where applicable, the storage areas have *passive secondary containment* and *active secondary containment* controls that would assist in containing a spill and/or directing the release away from navigable waters.

The BMC facility is routinely patrolled by the on-Site employees. All visitors are required to sign-in at the Main Office prior to gaining access to the facility. Access to bulk ASTs at the facility is restricted to authorized personnel. Access to the interior oil containers is restricted by BMC personnel and locked entries. The bulk storage containers are all factory designed and built, which provides for a high degree of standardization and reduces the potential for an oil spill.

The interior oil storage compartments of process equipment and 55-gallon drums located within Building 118 and the exterior D-2 storage container are constructed of steel, are non-field erected, and are appropriate for the storage of petroleum. The tank systems are designed so as not to add pressure to the vessels beyond the petroleum stored therein.

The five (5) exterior ASTs located at the facility are constructed of steel, are non-field erected, and are appropriate for the storage of petroleum under a variable seasons and temperatures and are designed so as not to add pressure to the vessels beyond the petroleum stored therein.

3.5 Capacity of the Secondary Containment Area - 40 CRF 112.8(c)(2)

3.5.1 Interior Oil Storage

Passive Secondary Containment for the interior P-1 and P-2A/P-2B oil reservoirs is greater than the maximum volume of oil stored in a single container in these locations. Containment at P-1 is greater than 100 gallons and containment at P-2A/P-2B is estimated at 145 gallons. P-3 containment is considered the surrounding concrete floor slab.

Passive Secondary Containment for the interior D-1 oil storage is the spill pallets which are greater than the maximum volume of oil stored in a single drum in this location.

Furthermore, the competent concrete floor slabs (Buildings 118 and 134) and lack of floor drains (Building 118) provides further containment from a release in these locations to impact navigable waters.

3.5.2 Exterior Oil Storage

Passive Secondary Containment for the bulk ASTs (AST-1 through AST-5) are the double-walled tank designs, associated interstitial sensor controls and concrete berm located around AST-5. The storage capacity of the containment beneath AST-5 is less than 500 gallons and was not constructed or intended to serve as containment for the entire contents of the tank, but rather as containment for incidental spillage or minor leaks.

Proper maintenance and oversight of the interstitial monitoring devices and visual inspection of each AST is a critical component to this SPCC Plan since the failure of the inner/outer walls of one of these ASTs could result in a release of oil that threatens to impact nearby surface water.

3.5.3 Vendor Bulk Off-Loading Area

The bermed concrete pad for vendor bulk off-loading operations to AST-1 through AST-4 is designed to direct the flow of liquids on the pad into a drainage trough, which leads to the Site WWTP. The valve to the drainage trough is normally closed and the pitched slope/berm of the containment pad will contain approximately 4,900 gallons, as *Passive Secondary Containment*, and would contain a “worst-case” release associated with BMC’s vendor off-loading operations.

Furthermore, the current design further provides for *General Secondary Containment* that is required under SPCC Rule for a vendor(s) bulk off-loading activities at the facility.

3.6 Methods to address Precipitation within Secondary Containment - 40 CFR

112.8(c)(3)

Precipitation that periodically collects in the AST diked area for AST-5 or around the U shaped curbing of T-1/T-2 is allowed to evaporate via natural processes. If oil sheen is present on accumulated water in these locations, sorbent booms and/or pads should be used to remove the sheen from the water.

Precipitation that periodically collects in the vendor bulk off-loading containment is allowed to evaporate via natural processes, or (if free of oils) is discharged into the WWTP. If oil sheen is present on accumulated water in this location, sorbent booms and/or pads should be used to remove the sheen from the water.

In extreme cases, water may be manually pumped out of the diked area(s) for appropriate management. In accordance with 40 CFR 112.8(b)(1) and (2), larger quantities of uncontaminated precipitation can be manually pumped out of the diked area(s) following a determination that a discharge of oil will not occur.

Note that this may require analytical testing to ensure that such accumulated water would not contain an RQ or Reportable Concentration (RC) of petroleum hydrocarbons under the MCP. Alternatively, the accumulated water can be pumped out of the dike for off-Site management under a BOL or Manifest.

Precipitation does not accumulate within the secondary containment measures of the facility interior oil storage locations and there are no discharges of collected stormwater from these locations.

3.7 Catholically Protected Steel USTs - 40 CFR 112.8(c)(4) & (5)

According to BMC there are no USTs present at the Colrain facility used for the storage of oils. Therefore, this SPCC Plan does not consider Site USTs (that may be used for other facility processes not involving oils) subject to the requirements of 40 CFR Part 112.

3.8 Periodic AST Integrity Testing - 40 CFR 112.8(c)(6)

Refer to Section 2.10 Inspections Tests and Records which addresses the periodic testing of ASTs.

3.9 Leakage from Heating Coils - 40 CFR 112.8(c)(7)

Heating coils are not utilized by BMC at the Colrain facility.

3.10 Update or Engineer Containers to avoid a Release - 40 CFR 112.8(c)(8)

The four double-walled AST systems (AST-1 through AST-4) are used to store #2 fuel oil/ULS #2 diesel and are equipped with interstitial leak detection and an emergency vents and fill gauges. Leak detection sensors are activated if the inner or outer wall of a tank develops a leak. The double-walled AST system (AST-5) is used to store diesel fuel oil and is equipped with interstitial leak detection and an emergency vent and fill gauge. Leak detection sensors are activated if the inner or outer wall of a tank develops a leak.

The fuel oil pumps are situated in Building 117. The deactivation of power to the transfer pump(s) ceases the transfer operations from these bulk ASTs.

3.11 Observe Effluent Treatment - 40 CRF 112.8(c)(9)

As discussed herein, BMC operates a WWTP as part of its facility operations and discharges treated effluent to the North River under applicable permit.

As part of normal operations (and under this SPCC Plan) BMC observes effluent treatment equipment and operations at a frequency that would be expected to detect possible system issues/upsets that could cause a discharge of oil to reach navigable waters.

3.12 Promptly Address Visible Discharge - 40 CRF 112.8(c)(10)

Refer to Sections 2.10 and 3.5 which addresses this consideration.

3.13 Mobile or Portable Storage Containers - 40 CRF 112.8(c)(11)

According to BMC, mobile refuelers and/or portable storage containers storing oils that would be subject to SPCC rule are not utilized at this facility.

3.14 Facility Transfer Operations - 40 CRF 112.8(d)(1), (2), (3), (4) & (5)

Refer to Section 2.3 for consideration of these requirements.

4.0 SPILL HISTORY

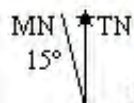
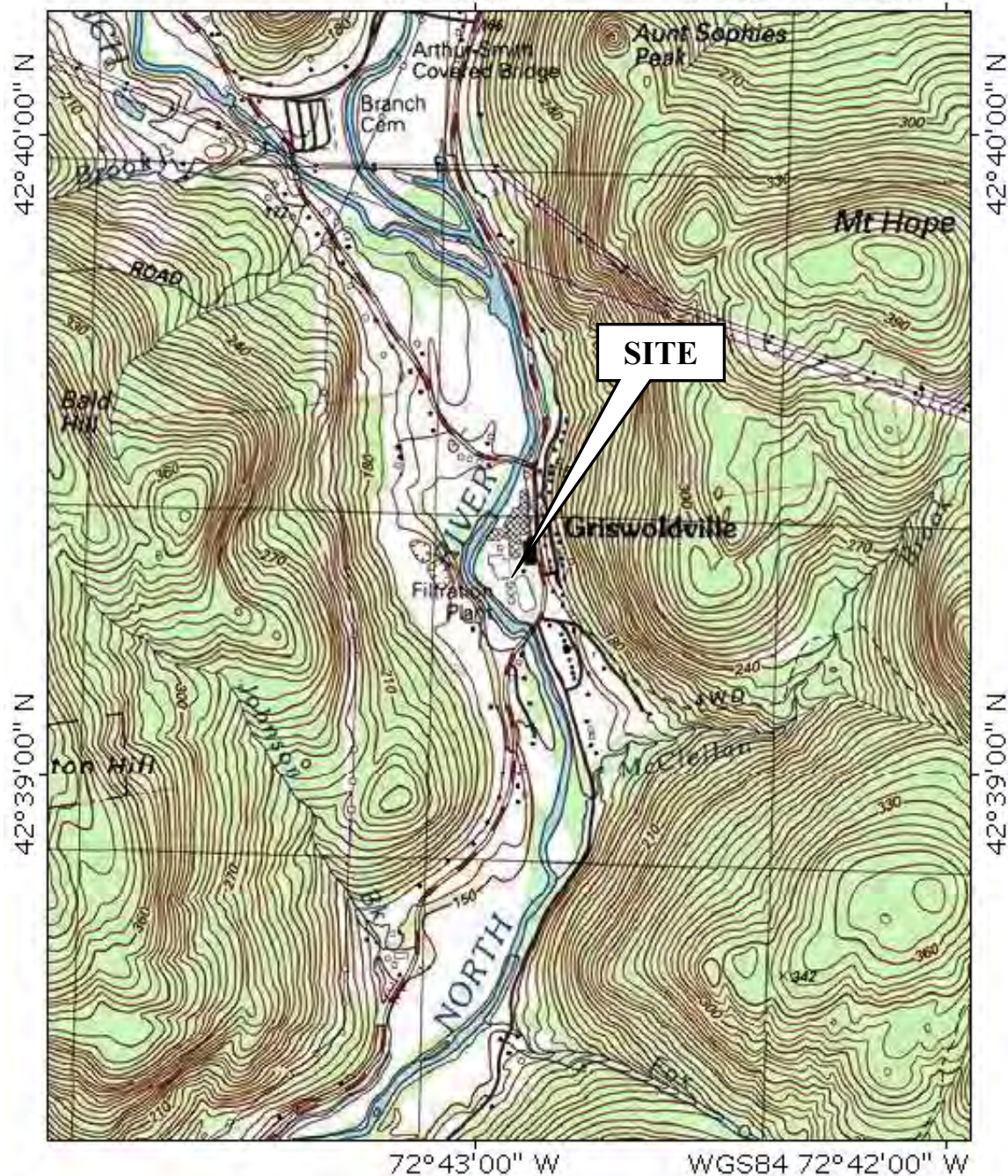
A review of the MassDEP's Spills Databases and Disposal Sites list was conducted for this SPCC Plan to identify available records for a reportable release from the Colrain facility. The MassDEP database did not contain reportable release for the Site facility with regards to the storage or use of petroleum oils subject to this SPCC Plan.

FIGURES

TOPO! map printed on 03/26/09 from "Untitled.tpo"

72°43'00" W

WGS84 72°42'00" W



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

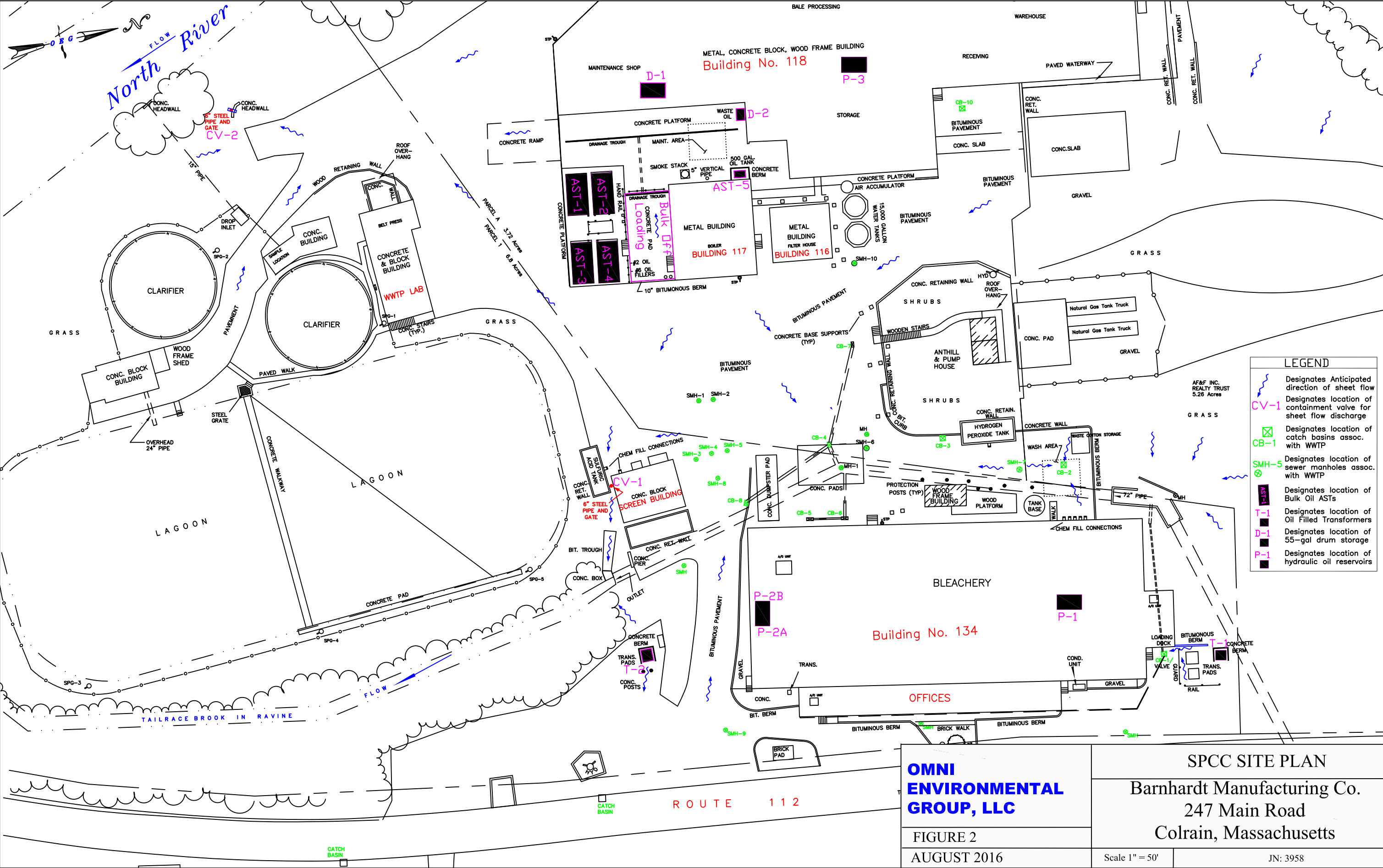
**OMNI
ENVIRONMENTAL
GROUP**

**Topographic Map
Barnhardt Manufacturing
Co.
247 Main Road, Colrain MA**



FIGURE 1

3958



APPENDIX A
SPCC Plan Amendment Log

AUGUST 2016 SPCC Plan Amendment Log

By	Date	Activity	PE certification required?	Comment

APPENDIX B
Inspection Forms

MONTHLY SPCC INSPECTION CHECKLIST
Barnhart - AST-1 (20,000-Gal. ULS)

Yes Check One	No	Item to Inspect	Comments and/or Actions Needed
<input type="checkbox"/>	<input type="checkbox"/>	Leak from Tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Ancillary Piping/connections/supports in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Leak(s) from Ancillary Piping/connections?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Staining to concrete pad?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank Gauge working properly?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Containment conditions satisfactory?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Water in containment area?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Alarm conditions at tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank labels in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank valves closed and locked?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Water in tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Spill Response Gear in adequate stock?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Safety equipment/devices in place and operative?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank exterior clean and intact?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Vents clear?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Proper drainage near tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	O-ring/gaskets of tank vents intact?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank supports in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Exterior Lighting functioning properly?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank foundation in good condition?	<input type="text"/>

Name: _____

Signature: _____

Date: _____

MONTHLY SPCC INSPECTION CHECKLIST
Barnhart - AST-2 (20,000-Gal. ULS)

Yes Check One	No	Item to Inspect	Comments and/or Actions Needed
<input type="checkbox"/>	<input type="checkbox"/>	Leak from Tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Ancillary Piping/connections/supports in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Leak(s) from Ancillary Piping/connections?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Staining to concrete pad?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank Gauge working properly?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Containment conditions satisfactory?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Water in containment area?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Alarm conditions at tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank labels in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank valves closed and locked?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Water in tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Spill Response Gear in adequate stock?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Safety equipment/devices in place and operative?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank exterior clean and intact?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Vents clear?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Proper drainage near tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	O-ring/gaskets of tank vents intact?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank supports in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Exterior Lighting functioning properly?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank foundation in good condition?	<input type="text"/>

Name: _____

Signature: _____

Date: _____

MONTHLY SPCC INSPECTION CHECKLIST
Barnhart - AST-3(20,000-Gal. ULS)

Yes Check One	No	Item to Inspect	Comments and/or Actions Needed
<input type="checkbox"/>	<input type="checkbox"/>	Leak from Tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Ancillary Piping/connections/supports in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Leak(s) from Ancillary Piping/connections?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Staining to concrete pad?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank Gauge working properly?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Containment conditions satisfactory?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Water in containment area?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Alarm conditions at tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank labels in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank valves closed and locked?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Water in tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Spill Response Gear in adequate stock?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Safety equipment/devices in place and operative?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank exterior clean and intact?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Vents clear?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Proper drainage near tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	O-ring/gaskets of tank vents intact?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank supports in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Exterior Lighting functioning properly?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank foundation in good condition?	<input type="text"/>

Name: _____

Signature: _____

Date: _____

MONTHLY SPCC INSPECTION CHECKLIST
Barnhart - AST-4 (20,000-Gal. ULS)

Yes Check One	No	Item to Inspect	Comments and/or Actions Needed
<input type="checkbox"/>	<input type="checkbox"/>	Leak from Tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Ancillary Piping/connections/supports in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Leak(s) from Ancillary Piping/connections?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Staining to concrete pad?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank Gauge working properly?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Containment conditions satisfactory?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Water in containment area?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Alarm conditions at tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank labels in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank valves closed and locked?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Water in tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Spill Response Gear in adequate stock?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Safety equipment/devices in place and operative?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank exterior clean and intact?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Vents clear?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Proper drainage near tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	O-ring/gaskets of tank vents intact?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank supports in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Exterior Lighting functioning properly?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank foundation in good condition?	<input type="text"/>

Name: _____

Signature: _____

Date: _____

MONTHLY SPCC INSPECTION CHECKLIST
Barnhart - AST-5 (500-Gal. Diesel Fuel)

Yes Check One	No	Item to Inspect	Comments and/or Actions Needed
<input type="checkbox"/>	<input type="checkbox"/>	Leak from Tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Ancillary Piping/connections/supports in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Leak(s) from Ancillary Piping/connections?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Staining to concrete pad?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank Gauge working properly?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Containment conditions satisfactory?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Water in containment area?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Alarm conditions at tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank labels in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank valves closed and locked?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Water in tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Spill Response Gear in adequate stock?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Safety equipment/devices in place and operative?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank exterior clean and intact?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Vents clear?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Proper drainage near tank?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	O-ring/gaskets of tank vents intact?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank supports in good condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Exterior Lighting functioning properly?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Tank foundation in good condition?	<input type="text"/>

Name: _____

Signature: _____

Date: _____

Monthly SPCC INSPECTION CHECKLIST
Barnhart - D-1 Storage Area (55-Gallon Drums of Hydraulic and Motor Oils)

Yes Check One	No	Item to Inspect	Comments and/or Actions Needed
_____	_____	Is the D-1 storage area in good condition with no evidence of oil spills?	_____
_____	_____	Are the associated 55-gallon drums in good condition with no evidence of oil spills?	_____
_____	_____	Is there standing oils wihtin the spill pallet(s) of D-1?	_____
_____	_____	Is spill response equipment available and ready for use?	_____

Name: _____

Signature: _____

Date: _____

Monthly SPCC INSPECTION CHECKLIST
Barnhart - D-2 Storage Area (55-Gallon Drums of Used Hydraulic and Motor Oils)

Yes Check One	No	Item to Inspect	Comments and/or Actions Needed
_____	_____	Is the D-2 storage container in good condition with no evidence of damage or tampering?	_____
_____	_____	Is the D-2 storage area in good condition with no evidence of oil spills?	_____
_____	_____	Are the associated 55-gallon drums in good condition with no evidence of oil spills?	_____
_____	_____	Is there standing oils wihtin the spill pallet(s) of D-2?	_____
_____	_____	Is the exterior lighting functioning properly?	_____
_____	_____	Is spill response equipment available and ready for use?	_____

Name: _____

Signature: _____

Date: _____

Monthly SPCC INSPECTION CHECKLIST
Barnhart - P-1 Hydraulic Pump Reservoir (100 Gallons of Hydraulic Oil)

Yes Check One	No	Item to Inspect	Comments and/or Actions Needed
_____	_____	Is the area surrounding P-1 in good condition with no evidence of oil spills?	_____
_____	_____	Is the associated hydraulic oil reservoir in good condition with no evidence of oil spills?	_____
_____	_____	Is there standing oils wihtin the concrete containment structure containing P-1?	_____
_____	_____	Is spill response equipment available and ready for use?	_____

Name: _____

Signature: _____

Date: _____

Monthly SPCC INSPECTION CHECKLIST
Barnhart - P-2A/P-2B Hydraulic Pump Reservoirs (115 Gallons of Hydraulic Oil)

Yes	No	Item to Inspect	Comments and/or Actions Needed
Check One			
_____	_____	Is the area surrounding P-2A/P-2B in good condition with no evidence of oil spills?	_____
_____	_____	Is the associated hydraulic oil reservoir in good condition with no evidence of oil spills?	_____
_____	_____	Is there standing oils wihtin the concrete containment structure containing P-2A/P-2B?	_____
_____	_____	Is spill response equipment available and ready for use?	_____

Name: _____

Signature: _____

Date: _____

Monthly SPCC INSPECTION CHECKLIST
Barnhart - P-3 Waste Bailer Hydraulic Pump Reservoir (100 Gallons of Hydraulic Oil)

Yes Check One	No	Item to Inspect	Comments and/or Actions Needed
_____	_____	Is the area surrounding P-3 in good condition with no evidence of oil spills?	_____
_____	_____	Is the associated hydraulic oil reservoir in good condition with no evidence of oil spills?	_____
_____	_____	Is the concrete floor surrounding P-3 in good condition?	_____
_____	_____	Is spill response equipment available and ready for use?	_____

Name: _____

Signature: _____

Date: _____

Monthly SPCC INSPECTION CHECKLIST
Barnhart - T-1 Storage Area (750 Gallon Non-PCB Transformer Oil)

Yes Check One	No	Item to Inspect	Comments and/or Actions Needed
_____	_____	Is the T-1 storage container in good condition with no evidence of damage or tampering?	_____
_____	_____	Is there oil staining on the concrete pad or area surrounding T-1?	_____
_____	_____	Are there any other conditions or observations indicative of a release of oil from T-1?	_____
_____	_____	Is the exterior lighting functioning properly?	_____
_____	_____	Is spill response equipment available and ready for use?	_____

Name: _____

Signature: _____

Date: _____

Monthly SPCC INSPECTION CHECKLIST
Barnhart - T-2 Storage Area (250 Gallon Non-PCB Transformer Oil)

Yes Check One	No	Item to Inspect	Comments and/or Actions Needed
_____	_____	Is the T-2 storage container in good condition with no evidence of damage or tampering?	_____
_____	_____	Is there oil staining on the concrete pad or area surrounding T-2?	_____
_____	_____	Are there any other conditions or observations indicative of a release of oil from T-2?	_____
_____	_____	Is the exterior lighting functioning properly?	_____
_____	_____	Is spill response equipment available and ready for use?	_____

Name: _____

Signature: _____

Date: _____

MONTHLY SPCC INSPECTION CHECKLIST
Barnhart - Bulk Off-Loading Area

Yes Check One	No	Item to Inspect	Comments and/or Actions Needed
<input type="checkbox"/>	<input type="checkbox"/>	Unloading area concrete in good general function/condition?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Signs of oil leakage into unloading area?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Oil staining to concrete pad?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	All proper signage in place?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Discharge valve to drainage grate fully closed?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Water in drainage grate? - Any discharge of water?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Oil in drainage grate?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Spill Response Gear in adequate stock?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Safety equipment/devices in place and operative?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Exterior Lighting functioning properly?	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	Asphalt berm at eastern (upper) end of unloading area in good condition?	<input type="text"/>

Name: _____

Signature: _____

Date: _____

APPENDIX C

Applicability of the Substantial Harm Criteria

**Certification of the Applicability of the Substantial Harm Criteria
August 2016 SPCC Plan**

Facility Name: Barnhardt Manufacturing Company
Facility Addresses: 247 Main Road
Colrain, Massachusetts.

1. Does the facility transfer oil over water to or from vessels, and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes No ☒ X

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons, and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?

Yes No ☒ X

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons, and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula¹) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see *Appendix E* to this part, section 13, for availability) and the applicable Area Contingency Plan.

Yes No ☒ X

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons, and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula¹) such that a discharge from the facility would shut down a public drinking water intake²?

Yes No ☒ X

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons, and has the facility experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes No ☒ X

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Signature:

Name:

Title:

Date:

Notes: ¹ If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form. ² For the purposes of 40 CFR Part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

APPENDIX D

Record of Annual Discharge Prevention Briefing and Training

of Annual Discharge Prevention Briefings and Training August 2016 SPCC Plan

Briefings will be scheduled and conducted by the facility owner or operator for operating personnel at regular intervals to ensure adequate understanding of this SPCC Plan. The briefings will also highlight and describe known discharge events or failures, malfunctioning components, and recently implemented precautionary measures and best practices. Personnel will also be instructed in operation and maintenance of equipment to prevent the discharge of oil, and in applicable pollution laws, rules, and regulations. Facility operators and other personnel will have an opportunity during the briefings to share recommendations concerning health, safety, and environmental issues encountered during facility operations.

[illegible]